

FILE COPY

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM 144

No. 56

Southern Pacific Company, a corporation,

Appellant.

. . .

STATE OF ARIZONA EX rel. JOE CONWAY, Attorney General of the State of Arizona,

Appellee.

BRIEF FOR APPELLANT

VOLUME I: THE LAW

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(c) In determining whether the Train Limit Law is in conflict with Acts of Congress, the entire scheme of the Federal legislation; including not only what Congress did say, but what it did not say, with all other relevant facts and circumstances, must control.
(d) Analysis of the evidence showing appellee's position respecting the dangers intended to be eliminated by the challenged law
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5. The Train-Limit Law Operates Arbitrarily and Unreasonably to Deprive Appellant of Its Property Without Due Process of Law (Assignment of Error No. 6)	
(a) In considering whether the law is an unreasonable exercise of the police power, the cost or expense of compliance with its provisions is properly a factor to be taken into account although not the sole factor	
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(e) A purported safety measure which in fact bears no reasonable, nor any regulation whatever, to health or safety, but on the contrary increases certain hazards and creates others which would not otherwise exist, is unreasonable and without rational basis, and without regard to its claimed or actual effects upon interstate commerce, should be held invalid because in violation of the Due-Process Clause. The train-limit law comes within this principle, and is therefore invalid.	
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SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1944

No. 56

Southern Pacific Company, a corporation,

Appellant,

VS.

STATE OF ARIZONA ex rel. Joe Conway, Attorney General of the State of Arizona,

Appellee.

BRIEF FOR APPELLANT VOLUME I: THE LAW¹

I.

OPINIONS BELOW

The opinion of the Supreme Court of Arizona (R. 4055-4068 is reported in 145 Pac. (2d) 530; the separate/dissent-

In a separately bound volume, styled "Yolume II: The Facts," appellant presents a discussion of the evidence in this case in its relation to the findings of fact made by the trial court. (The State Supreme Court made no findings, nor did it revise the findings of the trial court.) For reasons more fully explained hereafter, Volume II need not be reviewed in the study of the case, unless the Court should conclude that, by reason of an expression in the opinion of the State Supreme Court, issues of fact are open upon this appeal.

ing opinion of Honorable Henry D. Ross, a judge of that court (R. 4068-4071), is reported in 145 Pac. (2d) 536. The official (Arizona State) report is not yet in print.

The Memorandum Opinion of the trial court (the Superior Court of Arizona, in and for the County of Pima) is reproduced in the printed record (R. 4042-4054), but is not officially reported.

II.

JURISDICTION

Issues under the Constitution and laws of the United States (viz., the Commerce Clause, and the Due-Process Clause of the 14th Amendment; and the Safety Appliance and Interstate Commerce Acts) were duly presented to the Superior Court of Arizona, in a suit brought in that court by the State of Arizona (the present appellee) for the recovery of penalties for alleged violations of the Arizona Train Limit Law, the statute hereinafter quoted in full. That court ruled in favor of appellant upon such issues, holding that the Train Limit Law is invalid because in violation of said constitutional provisions and statutes, and rendered its judgment for appellant accordingly, February 11, 1942 (R. 4039-4041).

Upon appeal by the State to the Supreme Court of Arizona (the highest court of that state), the judgment of the Superior Court was reversed, the State Supreme Court (one judge dissenting) holding, on December 23, 1943, that the challenged statute is valid under the Federal Constitu-

tion and laws. Final judgment upon the mandate (R. 4072-4073) of the State Supreme Court was thereupon entered February 5, 1944 (R. 4073,4074). The present appeal from said judgment was duly presented and allowed March 7, 1944 (R. 4081-4082). Jurisdiction of this Court is invoked under Section 237(a) of the Judicial Code (28 U.S.C. 344(a)).

The order of this Court noting probable jurisdiction herein was entered May 1, 1944 (R. 4088).

III.

STATEMENT OF THE CASE

(a) THE STATUTE INVOLVED.

The Arizona Train Limit Law, the above mentioned statute the validity of which presents the essential question in the case, was enacted by the Arizona Legislature in 1912, and subsequently approved by the electors of that State at a referendum election on November 5, 1912. As enacted the statute had no preamble or statement of purpose, its full title and text having been as follows:

"An Act limiting the number of cars in a train.

Section 1. It shall be unlawful for any person, firm, association, company or corporation, operating

^{*}For convenience, throughout the record of this case the Arizona Train Limit Law has been generally referred to as either the "Train Limit Law," or simply and without other designation as the law." The same practice is followed in this Brief.

any railroad in the State of Arizona, to run, or permit to be run, over his, their, or its line of road, or any portion thereof, any train consisting of more than seventy freight, or other cars, exclusive of caboose.

"Section 2. It shall be unlawful for any person, firm, association, company or corporation, operating any railroad in the State of Arizona, to run, or permit to be run, over his, their, or its line of road, or any portion thereof, any passenger train consisting of more than fourteen cars.

"Section 3. Any person, firm, association, company or corporation, operating any railroad in the State of Arizona, who shall willfully violate any of the provisions of this act, shall be liable to the State of Arizona for a penalty of not less than one hundred dollars, nor more than one thousand dollars, for each offense; and such penalty shall be recovered, and suits therefor brought by the attorney general, or under his direction, in the name of the State of Arizona, in any county through which such railroad may be run or operated, provided, however, that this act shall not apply in cases of engine failures between terminals.

"Section 4. All acts and parts of acts in conflict with the provisions of this act are hereby repealed."

The law continued in full force and effect from and after its enactment, and until September 15, 1942. On the latter date observance was suspended by reason of the issuance by the Interstate Commerce Commission of its Service Order No. 85, dated September 11, 1942, published in Volume 7, Federal Register, No. 181, page 7258.

The text of the Commission's Order is set forth in the accompanying footnote.

*Chapter I—Interstate Commerce Commission Subchapter A—General Rules and Regulations (Service Order No. 85) Part 95—Car Service LENGTH OF TRAINS

At a session of the Interstate Commerce Commission, Division 3, held at its office in Washington, D. C., on the 11th day of September, A. D. 1942.

The Commission having under consideration operating rules, regulations, and State laws limiting the length of railroad freight and passenger trains, the Commission is of the opinion that, due to the existing state of war, an emergency exists requiring immediate action within the meaning of section 1, paragraphs (10) to (17), inclusive, of the Interstate Commerce Act.

It appearing that certain rules, regulations, practices, and laws are now in effect and are being enforced in certain states limiting the length of railroad freight trains to not more than onehalf wile and limiting the number of freight cars in a railroad freight train to 70 cars, and limiting the number of cars, in a pai/road passenger train to 14 or 16, and that compliance by railroads subject to the Interstate Commerce Act with such rules, regulations, practices, and laws, during the present emergency, may result in congestion of tracks and terminals, wasteful use of locomotives, and interference with the free flow of traffic decessary in the present emergency; and that railroad freight trains exceeding one-half mile in length, or exceeding 70 cars in length, and railroad passenger trains exceeding 14 or 16 cars in length may be operated in accordance with safety standards now applicable, during the present emergency, in and through , such states, and that such operation will facilitate the free flow of traffic necessary during the present, emergency; .

Therefore, it is ordered, that:

Sor

95.1 Length of trains

95.2 Effective period; emergency character.

AUTHORITY: §§ 95.1 and 95.2, issued under 40 Stat. 101, 41 Stat. 476, 49 Stat. 543, 54 Stat. 901; 49 U.S.C. 1 (10)-(17):

§954. Length of trains. From and after September 15, 1942, exercises by railroad subject to the Interstate Commerce Act shall operate their trains, when necessary for the prompt movement of freight and the clearing or avoidance of congestion by either freight or passenger trains, without regard to any rules, regulatives, practices or laws now in effect and being enforced in the

(b) THE PRESENT SUIT.

• Appellant operates a large railroad system in the south-western part of the United States, and is one of the two major railroad carriers whose lines traverse Arizona. In 1940, believing that the Train Limit Law is wholly invalid, appellant determined to operate its trains in Arizona without regard to the law, and during March and April of that year, it operated over its Arizona lines some 62 "long" passenger trains, and 302 "long" freight trains. These operations led to the institution of the present suit on April 19, 1940.

This suit was commenced by filing a complaint (R. 1-4) in the Superior Court of Arizona, in and for Pima County, in which the State was named as plaintiff, and appellant

By the Commission, division 3.

(Seal)

W. P. BARTEL, Secretary

Throughout this brief, as in the record of this case generally, trains of more than 70 cars exclusive of caboose, and passenger trains of more than 14 cars (the limits fixed by the law) are called "long" trains; trains conforming to these limits are called "short" trains.

various states limiting the length of freight trains to not more than one half mile and limiting the number of cars in a railroad freight train to 70 cars or limiting the number of cars in a railroad passenger train to 14 or 16.

^{§95.2.} Effective period; emergency character. This order shall remain in effect during the war in which the United States is now engaged, unless sooner terminated by subsequent order of the Commission; and that this order, being based upon conditions of war emergency, shall not constitute a precedent for peacetime operations.

It is further ordered. That this order shall be served upon each common carrier by railroad subject to the Interstate Commerce Act and upon each State railroad commission, and that notice of this order be given to the general public by depositing a copy thereof in the office of the Secretary of the Commission at Washington, D. C., and by filing it with the Director of the Division of the Federal Register, The National Archives.

as defendant. The complaint alleged the operation of a long passenger train, on March 2, 1940, and a long freight train on April 4, 1940, in violation of the law, and prayed judgment for the statutory penalties.

On May 9, 1940, appellant filed its answer (R. 5-32); in which, after admitting the operation of the two trains named in the complaint, it alleged that each of said trains consisted in large part of cars moving in interstate commerce and carrying interstate traffic, and denied that either of said operations was a willful violation of the law:

For a further separate and affirmative defense to the complaint, appellant alleged that the law was and is void, invalid and unconstitutional, because in violation of the Commerce Clause (Article I, Section 8, par. 3) of the Constitution of the United States, the Due-Process Clause of Section 1 of the 14th Amendment to the Constitution of the United States, and the corresponding Due-Process Clause set forth in Article II, Section 4, of the Constitution of Arizona, in that: (a) the law undertakes to regulate a subject-matter of national concern which, if required to be regulated at all, is subject to regulation only by Congress pursuant to the powers granted by the Commerce Clause; (b) the necessary effect of the law is to regulate appellant's train operations extra-territorially, that is to say, beyond the boundaries of Arizona; (c) the law directly and substantially interferes with, delays, and regulates appellant's interstate train operations in Arizona and the adjacent states; (d) the law imposes direct and substantial burdens supon the appellant's interstate train operations; (e) the law, to the extent that it has,

or is intended or claimed to have, the effect of limiting the number of cars in a train to that number which can be safely and effectively controlled or stopped by the use of air brakes and other appurtenances now in use on such trains, is in conflict with and an infringement upon existing Federal legislation having the same or similar purposes, enacted by Congress pursuant to its powers under the Commerce Clause; (f) the law deprives appellant of its property unreasonably and arbitrarily, in violation of the due-process clauses of the State and Federal Constitutions above referred to, for the reason, among others, that it bears no reasonable relation to health or safety, and does not eliminate or reduce any present hazard, but on the contrary creates certain hazards which would not otherwise exist, and increases other hazards of railroad operation in numerous respects.

The detailed facts supporting these basic allegations were set forth at length in the answer. See, in particular, paragraphs 1 to 6, inclusive, of Part III of the answer. (R. 7-23).

From the outset the snit was treated as a test case, in that the Attorney General, at the time the complaint was filed, obtained from the Superior Court an order as contemplated by the Arizona Code (Sec. 28-401, Arizona Code Annotated, 1939) staying all other prosecutions under the law, pending final determination of the present suit R. 5).

(c) PROCEEDINGS IN THE TRIAL COURT.

The case was especially assigned for trial to Superior Judge Levi S. Udall, sitting without a jury. The trial com-

menced on November 19, 1940 and continued, with several intervening recesses, until and including May 1, 1941. Voluminous evidence was introduced, and since appellant undertook the burden of establishing its affirmative defense, its evidence in support was particularly complete. Appellant called 60 witnesses, who were on the stand on 37 out of the 46 days required for the trial; it offered in evidence 316 exhibits, of which 311 were received. The State called 13 witnesses, and offered in evidence 86 exhibits, of which 68 were received.

Following the trial and subsequent briefing of the case, and the submission to the trial court of proposed findings of fact by both parties, Judge Udall, on February 11, 1942, rendered his opinion and decision (R. 4042-4054), in which he stated his conclusion that the law is unconstitutional and void upon each of the grounds asserted in appellant's answer. At the same time, Judge Udall adopted, signed, and filed special findings of fact (R. 3887-4034), and separately stated his conclusions of law (R. 4035-4038); thereupon judgment was entered in favor of appellant.

The specific legal grounds for the decision, as set forth in said judgment (R. 4040) are as follows:

"That that certain statute of the State of Arizona, known as the Arizona Train-Limit Law, being Section 69-119 of the Official Arizona Annotated Code, 1939, with statute is set forth in full in the complaint of the plaintiff herein, is unconstitutional and void, because:

"First: Said statute invades the exclusive legislative field of Congress, as limited and defined by the Commerce Clause (par. 3, of Sec. 8, Art. 1) of the Constitution of the United States; "Second: Said statute imposes direct, unreasonable and unlawful burdens upon, and interferes with, delays and obstructs interstate commerce, in violation of said Commerce Clause;

"Third: Said statute impairs the use and useful ness of the transportation facilities employed by defendant as a common carrier engaged in interstate commerce;

"Fourth: Said statute is in conflict with and infringes upon, and amounts to an unlawful attempt to supplement, the power-brake provisions of the Feneral Safety Appliance Acts, and the safety-device provisions of Section 25 of the Interstate Commerce Act, which Federal statutes operate upon the same subject matter and are directed to the same objects as said Train-Limit Law and by which said statutes Congress has completely and exclusively occupied the field of regulation of train lengths;

"Fifth: Said statute operates unreasonably and arbitrarily to deprive defendant of its property, without due-process of law, in violation of both the Due-Process Clause of the Fourteenth Amendment to the Constitution of the United States, and the Due-Process Clause set forth in Section 4 of Article 2 of the Constitution of the State of Arizona."

(d) PROCEÉDINGS ON APPEAL TO THE STATE SUPREME COURT.

On April 9, 1942, the State filed notice of appeal (R. 4054) to the Supreme Court of Arizona from the judgment of the Superior Court dated February 11, 1942. In connection with its appeal the State presented 886 separate assignments of error, asserting that the trial court had

erred: (1) in its rulings upon the admission and exclusion of evidence offered by the parties, thus preserving the objections and exceptions taken by its counsel during the trial (assignments Nos. 1 to 662, inclusive); (2) in making certain specified findings of fact, the findings thus challenged including the greater part of those adopted by the trial court (assignments Nos. 663 to 866, inclusive); (3) in making its conclusions of law (assignments Nos. 867 to 882, inclusive); and (4) in entering judgment (assignments Nos. 882 to 886, inclusive).

The appeal was submitted to the state court for decision, upon briefs and oral argument by the parties, on April 13, 1943. On December 23, 1943, the court announced its decision, concurred in by two judges (the third judge dissenting), reversing the trial court's judgment (R. 4055-4068). A motion for rehearing duly filed by appellant on. January 7, 1944, was denied by the court on January 13, 1944; on the same date the dissenting opinion (R. 4068-4071) was filed. The court thereupon issued its mandate (R. 4072-4073) dated January 14, 1944, ordering the judgment to be reversed but not, it will be noted, directing that the findings of fact be vacated or modified. In obedience. to said mandate, the trial court, on February 5, 1944, entered judgment (R: 4073-4074) declaring the law constitutional, and assessing against appellant a penalty of \$250.00 for each of the two violations alleged in the complaint. The findings of fact were not referred to in said judgment, nor was any order entered modifying or disturbing them in any respect.

The state court's opinion is noteworthy in that it includes no discussion of the facts, or the evidence, other

than mere passing mention of the two long-train operations described in the pleadings, a brief recital of the history of the enactment of the challenged law, and an indirect affirmation of the trial court's finding X-d (R. 3966-3969) that compliance with the law places upon appellant a continuing heavy burden of expense. No reference is made to the 662 alleged errors in the admission and exclusion of testimony, assigned by the State. The "findings of fact," though made the subject of 204 such assignments. are not even mentioned as such; indeed, the word "findings" appears but once in the opinion, near the end, in a sentence in which the court states that the "opinion, con densed as it is in the foregoing pages, expresses our reason for holding that the findings and judgment of the trial : court to the effect that the Train Limit Law is unconstitutional were in error."

This sentence cannot be construed as a pronouncement purporting to sustain the assignments of error addressed to the findings of fact, for two obvious reasons, among others: (1) there is no preceding discussion in the "foregoing opinion," relating to the findings of fact or assignments of error, or indicating any reason why the court might have considered any of the findings of fact to be erroneous; and (2) there were no findings of fact by the trial court "to the effect that the Train Limit Law is unconstitutional". All expressions of the trial court to that "effect" appear either as separate conclusions of law (R. 4035-4037), or in and as part of the judgment (R. 4040), or in the memorandum opinion (R. 4042). It is apparent that the state court had in mind, and intended specifically to reverse, the "findings" of unconstitutionality, which

appear in the judgment, for these are quoted at length in the opinion (R. 4056-4057), and are the only portions of any document signed and filed by the trial court which the state court thus mentions or quotes.

The decision of the state court rests principally upon the precedent afforded by the decision of the majority of the special three-judge Federal district court for the Western District of Oklahoma, in

> Missouri-Kansas-Texas Ry. Co. v. Williamson (1941), 36 Fed. Supp. 607;

in which decision the Oklahoma Train Limit Law, imposing a limit of 70 freight or other cars, exclusive of caboose, was sustained as valid under the Constitution, and laws of the United States.

It is quite apparent, from the text of the opinion, that the state court accepted the evidence as admitted (or excluded), by the trial court, and likewise accepted its findings of the facts developed by that evidence, and made no attempt to pass upon any of the alleged errors in either the rulings on the evidence, or the adoption of the findings. The court nevertheless considered that the Oklahoma Train Limit case afforded a satisfactory precedent, "fitting," as the court said, to be followed even though not binding upon it (R! 4062); and upon this basis reversed the judgment. To interpret the opinion as having any broader scope or purpose, or particularly as holding that the trial court erred in either its rulings or specific findings of fact, would be to read into an intention and result not supported or suggested by any language therein,

and indeed specifically negatived by the fact that the mandate did not direct that the findings of fact be set aside or modified.

The question of the interpretation to be given to this sentence of the opinion is discussed at greater length, with the development of additional reasons for the views above expressed, in subdivision 6 of the argument in this brief (pp. 314-330). Furthermore, assuming that, because of the quoted sentence, this Court may feel that there is a possible basis for questioning whether the trial court's findings of fact properly conform to the issues and the record are fairly supported by the evidence, we present in a separate volume, designated "Volume II: The Facts," a detailed discussion of those findings with reference to the supporting evidence. This discussion is presented under separate cover so that it may be readily omitted in the study of the case, as it should be unless the Court should consider that questions of fact are open upon this appeal.

(e) THE FACTS IN THE CASE, AS DEVELOPED IN THE SPE-CIAL FINDINGS OF FACT.

The Special Findings of Fact (R. 3887-4034) present a complete statement of all the relevant facts of the case as developed by the evidence. These findings are carefully and extensively annotated to the transcript and the exhibits, by the citation of the pages in the original reporter's transcript, and the exhibits by number, where is set forth the evidence relied upon to support each such finding. Such annotations form an integral part of the findings.

In order that this Court may have readily available a full statement of all the facts that are material to its consideration of the questions presented in the case, we here set forth the following condensed summary of the findings of fact:

1. Description of Appellant's Lines of Railroad.

Appellant is an interstate common carrier by railroad, with lines in seven states: Arizona, Nevada, Utah, Texas, New Mexico, Oregon and California: As such, it is subject to the Interstate Commerce Act. Directly, and through its connections, it participates in the carriage of interstate commerce between all points of the United States and adjacent foreign countries. It has an extensive mileage (8648 miles of line), and a very large investment (approximately \$729,000,000 in fixed property, not including rolling equipment). Its lines in Arizona consist of 1208 miles, and the investment in fixed property is approximately \$69,000,000.

Appellant's lines in the affected territory extend across Southern California, Arizona, and New Mexico; there being a principal main line (via Gila and Lordsburg) over which the freight traffic is largely handled, and two alternate lines. The ruling grades and curvatures along the lines in Arizona are generally favorable, there being no very severe grades; the heaviest ruling grades are but 14%. The percentage of curved, to total of all track mileage, is comparatively small; on the principal main line in Arizona 84% of the total mileage is straight track; and only 1% consists of curves of more than 6°. All curves in grade territory are "compensated." The lines in Arizona are well constructed, and capable of sustaining the heaviest and most powerful locomotives and cars owned or operated by appellante.

The appellant's lines in Nevada and Utah are in territory very similar to that over which extend the lines in Arizona and New Mexico; the operating conditions are also very similar, and the lines themselves are well constructed and equipped, in accordance with the same standards as in Arizona.

(Finding of Fact No. III, R. 3890-3897.)

Character of Freight and Passenger Traffic Handled Upon Appellant's Lines in Arizona and Adjacent Territory: Comparison With Nevada Traffic.

The traffic, both freight and passenger, handled over the Arizona lines is predominantly (about 93%) interstate. The freight traffic consists in large part of perishable products, livestock and manufactured products requiring expeditious handling, and of empty cars returning after moving under load. The traffic across New Mexico is of the same character. The traffic handled on the main lines across Nevada and Utah is likewise similar to that handled in and across Arizona, consisting largely of interstate freight and passenger movements, and of empty cars used for the handling of such interstate movements.

(Finding of Fact No. IV, R. 3897-3901.)

3. Becent Improvements in Appellant's Transportation Plant, Both Generally, and in the Territory Affected by the Law.

Since 1912, and especially face 1923, the track, roadbed, and fixed structures of appellant's lines in Arizona and the adjacent affected territory have been greatly improved in practically every detail of construction, through the expenditures of large sums of money. Similar improvements have been made on the fixed plant and equip-



ment of appellant on other portions of its system. At the present time, however, the sidings and passing tracks on appellant's main lines in Arizona, though otherwise improved, are still of about the same lengths as in 1912, and are not generally of sufficient capacity to hold more than 70 cars, including engine and caboose.

Great improvements have also been made since 1912, and particularly since 1923, in the rolling equipment, locomotives, cars, etc., used on appellant's lines. Many stronger and heavier locomotives—the types in use in Arizona being much the same as in Nevada and Utah—were especially acquired for handling long freight and passenger trains, and have proved their ability so to do through their use in Nevada and Utah. Large sums have been expended in acquiring and improving such newer and better locomotives and cars. All freight cars now in service are built of steel, or with steel underframes; all passenger cars are entirely of steel. There have been numerous detailed improvements in the cars, notably in the wheels, running-gear, and air-brake mechanisms.

The purpose of these expenditures and improvements was to permit appellant to operate its railroad safely, economically, and efficiently. The locomotives, cars and fixed structures in Arizona are fully adequate for long-train operations; and there are no reasons, from this standpoint, why long trains could not be operated in Arizona. If the law's restrictions were removed, such operations, would be initiated. The limited long train operations of March and April, 1940, demonstrated the practicability of long-train operations in Arizona.

(Finding of Fact No. IV, R. 3902-3908.)

4. Appellant's Methods of Operation, Past and Present.

Appellant's system is subdivided into operating divisions and subdivisions; each has a terminal, where runs of trains begin and end, and trains are made up and broken up. Runs of crews and locomotives generally extend from terminal to terminal, with some exceptions. All operations are conducted according to standard codes of operating rules; the same rules, subject only to certain local deviations, are in effect in Arizona and elsewhere upon appellant's system. Systematic inspections of equipment are conducted in both the affected territory and elsewhere, to make certain that equipment is in good order; these inspections being in accordance with a general code applicable to all railroads, and for the purpose of insuring safety in train handling.

Operations in Nevada and Utah are subject to the same code of rules, and carried on in accordance with the same standards and methods, as in Arizona. The same system officials have jurisdiction over all of these operations. The same equipment is used interchangeably in both the affected territory and on the Nevada-Utah lines. The traffic conditions, operating conditions, and other factors affect ing the operations are very similar, the only point of difference (other than the Arizona train-length restric tion) being that colder weather prevails during the winter months in Nevada and Utah. The records maintained, and the statistical and other reports required in connection with operations in Arizona, Nevada, and Utah are of the same character, and kept or rendered pursuant to systems and methods of accounting and reporting equally applicable in both territories. The Train Limit

Law presents the only substantial difference in conditions as between the two territories, so that comprehensive comparisons between them afford a highly effective method of testing the results of the law:

In 1912 appellant operated very few long freight trains in Arizona; the longest train then operated contained only 75 cars. There were likewise very few long passenger trains operated. Up to 1922 freight train lengths in Arizona tended to increase, but since 1922 there has been no substantial increase in the average. In Nevada, on the other hand, the average train length has increased consistently since 1912, and notably since 1923. The average train length in Arizona, for the period 1936 to 1939, was 53.85 cars; in Nevada for the same period, 76.28 cars.

The practice of long-train operation is followed everywhere on appellant's system, except in Arizona, and has been followed since about the year 1925. In spite of the restraining effects of the Arizona law, the result has been to increase the average length of all freight trains over the entire system from 42.4 cars in 1922, to 53.6 cars in 1939.

The average length of main line freight trains on the system in 1939 was 60.1 cars; on the Tucson Division (which includes most of the lines in Arizona) 59.8 cars; on the Salt Lake Division, which includes most of the lines in Nevada and Utah, 85.4 cars. Since 1925 appellant has operated substantial and increasing numbers of long trains on its system, particularly in Nevada and Utah.

The effect of the law is to cause appellant to produce a far greater number of train-miles in Arizona than if it

were able to operate long trains as in Nevada and Utah. The excess train-miles thus produced over the 15-year period (1925-1939) amounted to 32.7%; for the year 1938, 37.7%. Long-train operation in Arizona to the same extent as in Nevada and Utah is entirely feasible, subject only to the extension of the passing tracks and the provision of larger locomotives.

Appellant handles through freight moving across Arizona and Nevada and Utah upon regular time-schedules. These schedules over both routes have been substantially reduced since 1921. However, the proportion of trains handled over the Arizona route, arriving on schedule, has been less than the corresponding proportion of those handled over the Nevada route.

The various important indices of efficiency and economy of operation, such as average train speeds, average grosston-miles per train hour, average fuel consumption, and average cost per thousand revenue ton-miles, show that the improvements in efficiency and economy in Arizona, and on the Tueson Division, have been considerably less than in the Nevada-Utah territory, or upon the system; that the long-train program in Nevada and Utah, and upon the system as a whole, has resulted in much greater improvement in efficiency and economy of operation than in Arizona and the affected territory. Appellant's inability to attain greater efficiency and economy of operation in Arizona, on the same scale as in Neyada, or upon its system as a whole, is largely and directly due to the Train Limit Law.

(Finding of Fact No. VII, R. 3909-3934.)

Comparison of Appellant's Methods of Operation With Those
 Followed on United States Railroads Generally.

The improvements in roadbed and equipment made by appellant were part of a general program of improvement agreed upon and carried out by United States railroads generally, commencing about the year 1923. In connection with this program the United States railroads built and purchased larger and heavier locomotives, larger and betted freight and passenger cars, and retired the older, smaller and less efficient cars and locomotives. Improvements in the appliances upon the locomotives and cars were likewise made. All of this was for the purpose of improving service, and to permit safer, speedier, and more economical operation.

The railroads of the United States, acting through their Association, have a general code of rules covering the details in construction and equipment of cars, which all carriers are required to observe.

Improved methods of operation were undertaken contemporaneously with the 1923 program of improvement upon the railroads generally, and were made possible by reason of these improvements. These improved methods included the adoption and development of the standard long-train operating practice. The result has been that the average and actual lengths of freight trains in the United States have tended to increase continually. The long-train practice is now standard on practically every railroad in the United States, including all of the connections and competitors of the appellant. The handling of through freight on published and agreed schedules is likewise a general practice; and as methods of

operation have improved, and equipment and roadbed have likewise been improved, these schedules have been shortened and better on-time performance has been secured. Long-train operation constitutes an essential part of these improved operating methods.

Since 1923, and coincident with the substantial increase in train lengths during that period, there has been a marked improvement in the efficiency and economy of railroad operations in the United States. This improvement is comparable to that achieved upon appellant's lines. except those in Arizona, but including particularly the lines in Nevada and Utah. It is a direct result of the improvements in roadbed and equipment and operating methods, and particularly the long-train operating practice. It is shown by study of the various indices of efficiency before mentioned. It is likewise illustrated by the statistics of 16 individual systems, whose lines reach into every section of the country, and include about 54.25% of the mileage of the Class I railroads of the United States and handle about 60% of all the traffic handled by shell railroads.

Each of these 16 systems follows the practice of long-train operation, except to the extent that the law prevents the Santa Fe from doing so in Arizona and adjacent territory,

These improved methods of operation, and particularly the long-train practice, have resulted in substantial public benefits, through the carriers' ability to reduce the levels of their freight and passenger rates and charges, and to increase the average wages paid to their employees.

The operating rules upon United States railroads generally, and particularly the 16 individual systems referred to, are modeled upon the standard code, which also forms the basis for appellant's code of operating rules. Operating conditions upon these other railroads, traffic conditions, and other relevant circumstances are in general largely similar to those encountered upon appellant's lines in the affected territory.

(Finding of Fact No. VIII, R. 3934-3947:)

6. Recent Long-Train Operations of Appellant in Arizona: Intention to Undertake Future Long-Train Operations.

In March and April, 1940, appellant operated 62 long passenger trains, and in April, 1940, it operated 302 long freight trains, in Arizona. The average length of these long freight trains was 86.36 cars. The average length of all appellant's freight trains operated in Arizona during the month of April, 1940, was 57.85 cars. This long freight-train operation was upon a limited scale, principally because of limited siding capacities in Arizona.

If the restrictions of the law are removed, appellant will at once institute, and thereafter continue, long-train operations. In order to do so upon a substantial scale, comparable to operations in Nevada and Utah, it will be necessary to fextend some 49 sidings in the affected territory; to provide additional repair and water-supply facilities and to acquire, either by purchase or transfer from other portions of the system, some 30 or more larger locomotives. Such locomotives will replace approximately 50 smaller locomotives now in service, which will then be assigned to other parts of appellant's system.

(Finding of Fact No. IX, R. 3947-3950.)

7. Effect of the Train Limit Law Upon Appellant's Operations:

Appellant conducted redispatching studies for the purpose of determining the precise effects of the law upon its operations in the affected territory. These studies, conducted under the supervision of fully qualified officers, consisted of detailed analyses of traffic handled over the affected lines during a typical recent period, which traffic was then "redispatched" into longer trains, so as to conform the operations, for the purposes of the study, to conditions which would prevail if the law were wholly set aside. The actual redispatching was performed by chief train dispatchers who have immediate jurisdiction over operations in the affected territory.

The results of these studies present a precise and accurate determination of the effects of the last in requiring additional train service, creating or aggravating delays, and causing additional expenses.

The first of the redispatching studies related to the months of June and August, 1938. A second study related to the month of April, 1940, when long train operations were undertaken; the operations being recast upon the basis of full observance of the law. In this way the amount of the saving actually achieved during the long-train period of April, 1940, was determined. This same period was also further redispatched, upon the basis of a completely unlimited long-train operation, to determine the amount of the potential saving if long-train operations on an unlimited scale had been possible during that period. The combination of these last two studies determines the differences between compliance with the law during April, 1940, and completely unlimited long-train operations during and completely unlimited long-train operations during and completely unlimited long-train operations during the law during April, 1940, and completely unlimited long-train operations during the law during April, 1940, and completely unlimited long-train operations during the law during the law during the law during April, 1940, and completely unlimited long-train operations during the law during

ing that period, as to the features of additional train service, delays, and expenses.

The 1938 and 1940 studies, taken together, check and confirm each other's results.

A further study was undertaken with respect to passenger traffic during the entire year 1938, which determined the amount of the possible saving in expense and additional service if the passenger train restriction were disregarded.

The redispatching studies demonstrate that the law impases delays, due to necessary switching and reconsisting at terminals, both in Arizona and outside of the State, and at other points along the line outside of the State, and that in this respect it operates with substantial extraterritorial effect. Because of the substantially increased number of trains operated, the number of interferences due to the necessary meeting and passing of trains are greatly increased. The 1938 study shows that 4,304 additional unnecessary freight trains were run over the principal main line between Yuma and El Paso, via Gila and Eordsburg, which would not have been operated if it were not for the law; that such operations caused 16,512 additional meets and passes in that territory during that year. About 38.0% additional and unnecessary freight trains were thus run on said principal main line during 1938, which caused the meets and passes thereon to be increased about 63.0%.

The effect of the delays and interferences of the law was to cause scheduled freight trains to arrive later than if the law had not been observed, and to bring about

more schedule failures than would otherwise have taken place.

The law's restrictions also caused numerous delays to passenger trains and passenger-train equipment, and compelled, in 1938, the operation of 2,203 excess passenger-car miles. Many of these delays, and much of this excess car mileage, took place outside of Arizona.

By compelling the average and maximum lengths of freight trains to be reduced, the law correspondingly inereases the number of trains operated and the number of train-miles and locomotive-miles produced. In 1938, if the law had not been in effect, the traffic actually moved by appellant between Yuma and El Paso, via Gila and Lordsburg, and between Tucson and El Paso, via Douglas, could have been handled (as stated) with 4,304 fewer, freight trains, 638,569 fewer freight-train miles, and 798,424 fewer locomotive miles. Of the additional freighttrain miles compelled by the law, 151,788 were produced in New Mexico and Texas, and were caused by and solely due to the law's extra-territorial effect. In 1940, as reyealed by the 1940 redispatching studies, the traffic was heavier, and the additional and unnecessary trains, trainmiles and locomotive-miles were substantially greater in number.

Similar effects follow from the passenger-train restriction, which has even wider extra-territorial effect than the freight-train restriction.

The increased annual expense of operation imposed upon appellant by the law amounts to \$394,900 per year, based on 1988 operations. This figure includes the costs

due to wages of the crews on the additional trains, locomotive repairs, for the additional engines used, and fuel
for the additional train operations, and certain other
smaller items, but also takes into account, as an offsetting
credit, all of the increased charges resulting from the increased investment in locomotives, and other facilities, in
order to commence and continue unrestricted long-train
operation. Of the total of the additional expense caused
by the law, some \$94,600 is associated with operations
entirely outside of Arizona, and is made necessary by
reason of the extra-territorial effect of the law.

(Finding of Fact No. X, R. 3950-3969.).

8. Slack and Slack-Action in Trains: Nature, Cause and Effects.

Freight and passenger cars are held together by means of couplers, which, in turn, are attached to the frames of the cars by draft gears. The latter provide a non-rigid connection between the units comprising the train. Most draft gears are of the friction type, but there are some few spring-type draft gears still in use. Friction-type draft gears permit a certain amount of motion, which is controlled by the friction members of the draft gears, and amounts to approximately 234 inches in either direction from the mean, or normal, position. In addition to this controlled movement, there is also a small amount of play—approximately 1 inch—at the coupler faces, between each pair of coupled cars.

The term "slack," as used in train operation, means the amount of movement between the coupled cars, and includes both the free motion at the coupler faces and the controlled resistance in the draft gears. The term "slackaction" means the accumulated effect of such motion, as it comes into play as the result of train operations. Slack and slack-action exist in trains of all lengths.

Many particular time, including: the train speed; whether or not the slack is "bunched" or extended; the grade upon which the train is moving; whether it is accelerating or decelerating; the consist of the train, whether all loads or empties, and if partly leads and partly empties, the position of the loads and empties with respect to each other; and the action taken by the engineer in charge of the train. To a large degree the extent and amount of the slack-action in a freight train are within the control of the engineer, through the use of the air brakes and the engine power.

The amount and severity of slack-action in freight trains does not depend solely upon the number of cars in the train, but also upon the numerous other factors mentioned. The limitation of trains to 70 cars neither eliminates nor reduces the number or severity of the easualties attributable to slack-action. Such casualties take place on both long and short trains, and there are times when emergency stops of long trains take place without casualties, although similar stops of short trains produce severe casualties. The presence or absence of accidents and casualties due to slack-action is due to the presence or absence, in varying degree, of the factors which contribute to and control such slack-action.

In passenger-train operation, while slack and slackaction exist, it does not appear that the results of slackaction are any more severe or frequent on long than on short trains. Nor does it appear that slack-action in passenger trains, whatever the train's length, is sufficient to cause serious injury or damage.

(Finding of Fact No. XI, R. 3969-3974.)

Safety of Operation as Affected by Train Lengths: Accident and Casualty Statistics.

Reports of railway accidents are made to the Interstate Commerce Commission, by each carrier each month; those reports being summarized in annual accident bulletins published by the Commission, which classify the accidents in great detail by type and cause.

All the statistical showings of accidents and casualties received in this case were based upon statistics and reports of accidents to the Interstate Commerce Commission, or on records of accidents reportable to that Commission.

Accidents may be measured, as to their frequency, on the basis of locomotive-miles, train-miles or car-miles operated; casualties to individuals may also be measured scainst man-hours worked, or man-miles traveled. All these bases are in common use. The car-mile basis is the proper method to determine the frequency of casualties in relation to volume of traffic.

Side by side with the increase in train lengths on Class I railroads of the United States during the period 1923-1939, there has been a continued downward trend in the frequency of casualties to all classes of employees. During the five-year period 1935-1939 such casualties, on a car-mile basis, were 70.33% less frequent than in the six-year period 1923-1928. On other bases of measurement, approximately the same improvement is shown.

Considering casualties sustained by road trainmen and enginemen only, there has been substantially the same improvement; the rate of frequency on the car-mile basis having improved 69.21%, comparing the five years 1935-1939 with the six years 1923-1928. As to casualties to road freight trainmen and enginemen on duty, the corresponding improvement, comparing the same two periods, was 69.32%. Considering only road freight conductors, brakemen and flagmen (not including enginemen), there was a similar downward trend, the improvement having been 66.21%, comparing the same two periods.

Confining the comparison to those casualties due to sudden start, stop, jerk or lurch of train or car, sustained by road freight conductors, brakemen and flagmen on duty (the so-called "slack-action" group), the reduction in the casualty rate, and the absolute number of casualties, has likewise been consistent over the period 1923-1939.' Comparing the six years 1923-1928, with the five years 1935-1939, the improvement in the later period was 65.29%. In 1923 there were 1,957 of these casualties on all Class I railroads in the United States; in 1939, only 399 such casualties. In the five-year period 1935-1939, there were more than 37,000 casualties of all kinds to all classes of employees on duty in train and train-service accidents on Class I railroads; the unimportance of the so-called slack-action group of casualties is shown by the fact that there were but 2,473 such casualties during the same five-year period. There were only three fatal slack-action casualties in 1939; but the total of employee fatalities in all train and train-service accidents in that year was 353.

There has also been a consistent improvement in the rate of casualties to passengers on trains of Class I railfoads; the improvement, on a passenger-mile basis, having been 17.66%, comparing the later five-year period 1935-1939 with the earlier six-year period 1923-1928.

The same downward trend is shown in the frequency of train accidents, i.e., that class of accidents, with or without casualties, which involve property damage in excess of \$150.00. The nation-wide improvement in the accident rate of this class was 62%, comparing the later five-year period 1935-1939 with the earlier six-year period 1923-1928. Train accidents caused by defects in or failures of equipment have declined, over the 17 years 1923-1939, by \$2.75%. Casualties in these classes of accidents are very infrequent, and have generally tended to decrease over the 17-year period referred to, the improvement in such frequency having been 74%.

A considerable part of the improvement in casualty rates on American railroads during the period in question is clearly shown to be directly attributable to the adoption and growth of the standard long-train method of operation, because a substantially less number of train units was operated than otherwise would have been required, and thus the opportunity for accidents and casualties was reduced.

Serious accidents are investigated by the Interstate Commerce Commission through its Bureau of Safety, which makes detailed reports. During the 12-year period 1928-1939, 1,002 serious accidents were investigated. 561 of these involved freight trains. 728 trains were involved,

of which 574 were of 70 cars or less, and 344 of 40 cars or less. Negligence of employees was assigned as the cause of 62.2% of the freight-train accidents. Defects in equipment were assigned as the cause in only 14.1% of such accidents. In none of the serious accidents investigated was there any finding that train length had any bearing upon the accident, or that it might have been avoided if the train had been shorter. No recommendations were made by the Commission as to train length, although many other recommendations were made.

In the six year period, 1934-1939, out of 620 accidents investigated, 232 involved passenger trains; 267 passenger trains in all were involved. 261, or 97.8%, of these trains were of 14 cars or less, and 224, of 11 cars or less.

48.3% of these passenger-train accidents were caused by negligence of employees, according to the bureau's findings. Defects in equipment were charged with only 7 of these accidents, or 3% of the total. Collisions with vehicles at grade crossings were charged with 18% of these accidents; all but one of the trains involved in these grade-crossing collisions were short trains.

On appellant's Pacific Lines, the number and frequency of casualties to employees on duty, sustained in train and train-service accidents, has shown a general and substantially declining tendency. Over the 17-year period 1923-1939, the casualty rate for all classes of employees on duty has shown an improvement, comparing the five years 1935-1939, with the six years 1923-1928, of 26.86%.

The frequency of casualties to trainmen on duty on appellant's lines has likewise substantially declined since

1923. On the car-mile basis, comparing the earlier sixyear period just mentioned with the recent five-year period 1935-1939, the improvement in the casualty rate was 38.16%.

The record contains exhaustive summaries of accidents occurring on appellant's lines in Arizona and Nevada, and comparisons of casualty frequency rates, as between the two states, together with exhibits and oral testimony relating to such accidents and casualties in detail. lines in Arizona and Nevada are substantially similar, from practically every standpoint; so that these comparisons afford a fair and reliable basis of contrasting operations as a whole, on the restricted basis permitted by the · Arizona law, with operations conducted free of such restrictions, and show that the enforcement of the Arizona law has not been accompanied by any measurable decrease of casualties, including slack-action casualties, but has been accompanied by a greater proportion of casualties of all classes and from all causes. Since 1929, long-train operation in Nevada has greatly predominated; but prior to 1926, the operation of short trains predominated.

Comparing Arizona and Nevada, the rates of frequency of casualties to all classes of appellant's employees, in all classes of service, have generally been substantially higher in Arizona than in Nevada, and this is particularly true during the years since and including 1929. Generally speaking, the casualty rate in Arizona has been approximately twice as high, for these classes of casualties, as in Nevada, During the six years 1935-1940, there were more than three times as many injuries to employees in Arizona (266) as in Nevada (86), although in that period the

locomotive-miles in Nevada were 21,757,000, as compared with approximately 31,000,000 in Arizona.

Limiting the comparison to casualties to all classes of employees on duty, in road freight-train operation, showing is more favorable in Nevada in every year, whether absolute number of casualties or casualty frequency rates be considered. This is particularly true of the years since 1929, when long-train operation has predominated in Nevada. Comparing frequency rates, the Arizona rates are much higher than those in Nevada, whether the train-mile or the car-mile basis is employed, the yearly frequency in Arizona being from one and onehalf to two and one-half times as great as in Nevada. For the six years 1935-1940, the car-mile frequency in Arizona (16.54 per 100 million car-miles) was 2.5 times the Nevada rate (6.52). While there has been a downward trend in casualty rates in both states, the improvement in casualty rates in Nevada (61.5% on the train-mile basis, 71.1% on the car-mile basis) has been much greater than in Arizona (49.2% and 52.3%, respectively).

Confining comparisons to accidents to road freight conductors, brakemen and flagmen on duty, the same results are shown. Casualties have been larger in absolute number and much more frequent in their occurrence in Arizona than in Nevada, although the volume of the appellant's freight traffic handled in Nevada was about 5% greater than in Arizona. During the years of predominant long-train operation in Nevada (since and including 1929), the comparison favors Nevada still more strongly, the frequency rates of those casualties in Arizona (17.17 per 100 million c.m., 1929-34; 13.53 per 100 million c.m., 1935-40)

having been more than twice the corresponding Nevada rates (8.56, 1929-34; 6.05, 1935-40).

Considering only those accidents to trainmen due to sudden start, stop, lurch or jerk of train or car-the socalled "slack-action" casualties-it clearly appears that the enforcement of the 70-car limit in Arizona has not had the effect of preventing or minimizing such accidents and the incident casualties, either when the Arizona operations alone are considered, or when they are compared with the Nevada operations of the appellant. Considering absolute numbers of such casualties, there were 101 on short trains in Arizona during the 18 years 1923-1940 as compared to 94 on long trains in Nevada. Combining the two states, there were 125 such short-train casualties in both states, and 96 such long-train casualties in both states. During the 12 years 1929-1940, there were 61 such casualties on all trains in Nevada, and 62 in Arizona. As stated, the Nevada traffic was 5% greater than in Arizona.

This type of casualty is of comparatively infrequent occurrence. There were periods of several months in each state when no such casualties occurred. During the six years 1935-1940, the frequency rates were: Nevada, 3.14, and Arizona, 2.90 per 100 million car-miles, a difference of 24 casualty, or about one for each 416,666,667 c.m.: about one casualty for each 3½ years of operation. The improvement in the frequency rate of these casualties in Nevada, which has accompanied the increase in actual and average train lengths in that state, has been much greater than in Arizona. On the car-mile basis, the improvement, comparing the six years 1935-1940 with the six years 923-1928, has been 57.5%; in Arizona 47.7%

It clearly appears that the so-called "slack-action" accident is a ninor factor in determining the reasonableness of the Train Limit Law.

Considering casualties in absolute number, and particularly from the standpoint of the additional hazard to road freight conductors, brakemen and flagmen caused by operating more train units than necessary, over the 18 years 1923-1940 there were 268 casualties to such employees in Nevada, and 449 in Arizona.

The law does not tend to minimize derailments caused by defects in or failure of equipment, as is shown by comparing Arizona and Nevada during the period 1923-1940. During that period there were 70 derailments of this class on appellant's lines in Nevada, and 106 in Arizona; and of the 70 Nevada derailments, 35 occurred on short trains; so that there were 141 out of a total of 176 derailments in both states on short trains, but only 35 on long trains. The rate of frequency of such derailments was also substantially greater in Arizona than in Nevada, throughout the 18 year period; on the car-mile basis, the rates were respectively, 2.93 per hundred million car-miles for Nevada, and 4.64 per hundred million car-miles for Arizona.

Comparing the Nevada accidents and casualties by periods, and contrasting the earlier period when short-train operation predominated in that state, with the later period when long-train operation predominated, accidents and casualties in that state were greatly reduced in the latter period. In the three years 1923-1925, which were short-train years, there were 114 casualties to road freight-train employees on duty; in the three years

1937-1939, there were but 33 such casualties; although the volume of traffic during those three years was approximately 25% greater than in the earlier three-year period. Comparing frequency rates, on the locomotive-mile and train-mile basis, casualties during the earlier short-train period were 2.88 times as frequent as in the later long-train period; on the car-mile basis, they were more than four times as frequent.

Substantial improvements in appellant's roadbed, bridges, and equipment have been made in both Nevada and Arizona; the only fundamental différence between the two states being that created by the restrictions of the law. Therefore, while the improvements in casualty frequencies in both states are to some extent due to such improvements, the greater reduction in casualty frequencies in Nevada is largely, if not wholly, due to the absence of the train-length restriction and the consequent opportunity for long-train operation. It clearly appears that the standard long-train operation in Nevada, on appellant's lines, is much safer when all classes of employees subject to hazards in road freight-train operation are considered, than the restricted operation in Arizona.

The casualty showing for appellant's Los Angeles Division, indicates that the proportion of the accidents and casualties occurring upon or in connection with the operation of long freight trains is slightly less in relation to all casualties occurring in freight-train operation, than the proportion of such long trains to the total of all trains run; and it particularly appears that there is no special or unusual hazard, produced by or associated with the operation of long freight trains on that division, that does

not also appertain to short-train operation, and that the elimination of long trains would not in any degree reduce or eliminate such hazards.

The evidence of casualties in appellant's freight-train operations in New Mexico, introduced by both appellant and appellee, shows that such casualties have been substantially less in both number and frequency than in Arizona, although somewhat more frequent than in Nevada. Average train lengths in New Mexico are somewhat greater than in Arizona, though not as great as in Nevada; and the percentage of long trains operated in New Mexico is much less than in Nevada. Considering the 11-year period 1930-1940, there were, in New Mexico, 129 casualties to all employees associated with freight-train operation, 98 of which were on short trains. During the five years 1936-1940, there were 61 such casualties, of which 49 were on short trains. During the same 11-year period (1930-1940) there were, in Arizona, 251 casualties to all employees in freight-train operation, and the casualty rates were substantially higher than in New Mexico. During the same 11-year period there were, in New Mexico, 92 casualties to road freight conductors and brukemen on duty, 67 of which were on short trains, whereas in Arizona there were 203 such casualties. The casualty rates for such casualties in Arizona were likewise substantially higher than in New Mexico. Considering only the so-called "slack-action" casualties, there were, during said 11-year period, only 29 such casualties in New Mexico; whereas there were 56 in Arizona; and the frequency of such casualties was again substantially higher in Arizona than in New Mexico.

Considering only train accidents in New Mexico and Arizona, the number and frequency rate of such accidents were much greater in Arizona over the 11 years 1930-1940, there having been 120 such accidents, 98 of which were on short trains, in New Mexico, and 232 such accidents, all on short trains, in Arizona.

So far as concerns passenger-train accidents in New Mexico, the evidence shows that train length has had nothing to do with any accident or casualty occurring on appellant's lines in that state during the 11-year period 1930-1940.

.The Atchison, Topeka & Santa Fe Railway Company, which operates in California, Arizona and New Mexico, as well as in numerous other states, observes the Arizona law in its operations between Needles, California, and Gallup, New Mexico, a distance of 419.7 miles, but is free of such restriction, except for the extra-territorial effect of the law, in its operations in New Mexico east of Gallup. Casualty comparisons, covering accidents to road freight, trainmen and enginemen on duty, and occurring while on or getting on or off road freight trains, show that in the short-train district between Needles and Gallup, the number and frequency of such casualties has been substantially greater over the 17 years 1923-1939 than in the 384-mile district between Gallup and Clovis, New Mexico. The nature and character of the traffic in the two districts compared is greatly similar, the only dissimilarity being in the length of trains: Thus during the 17-year period, there were 119 casualties of the classes specified in the Clovis-Gallup long-train territory, bist 219

in the short-train territory between Gallup and Needles; the frequency rate of such casualties on the car-mile basis was 8.75 per hundred million car-miles in the Clovis-Gallup territory, and 14.44 in the Gallup-Needles territory.

Statistics of operations on the Chesapeake and Ohio Railway, which is a Class I railroad, operating in Virginia, West Virginia, Kentucky, Ohio, Indiana, and Illinois, and which perates a very large percentage of its main-line freight trains in lengths of 70 cars or more, show pronounced reductions in the number and frequency. of casualties to employees, and particularly to trainmen and enginemen in road freight-trail operation. Operating conditions on the lines of this railroad are not substantially dissimilar to those in Arizona; some of the grades. being wore severe than on any of appellant's main lines in said state. Long train operation greatly predominates on its main lines, it appearing that during a typical period in 1939, more than 88% of its main-line trains were long trains, and that 53.8% consisted of more than 140 cars: 150 car trains are commonly operated by this carrier. The improvement in its casualty rates, comparing the three years 1936-1938, with the four years 1924-1927, has been 62.21% for all employees, and 67.27% for trainmen and enginemen. There has been a corresponding improvement in the frequency of derailments due to defects in or failures of equipment.

There has been a continuous and marked decrease in the frequency and total number of reportable casualties in train and train-service accidents on appellant's lines, in Nevada, during the 18-year period 1923-1940, but a substantially less decrease in such number and frequency over the same period in Arizona. As before stated, train lengths have substantially increased over said 18-year period in Nevada, but have remained practically constant in Arizona. The improvement in the casualty rate per hundred million car-miles in Nevada, comparing the six years 1935-1940 with the six years 1923-1928, has been 71.1%; in Arizona, 52.3%.

Many casualties to employees occur while trains are standing; such casualties are closely related to and increase with an increase in the number of trains operated, but have no relation to the length of the train. During. the 18 years 1923-1940 there were 546 reportable casualties in Arizona sustained by all classes of appellant's employees (as compared with 308 in Nevada) on duty in road freight-train operation. 177 of these Arizona casualties, or 32.4%, occurred while trains were standing, and all were on short trains: 73 of the 308 Nevada casualties, or 23.7%, occurred while the trains were standing, and 53 of the 73 were on short trains. There were likewise many casualties in connection with passenger-train operation, sustained while such trains were standing, in the 17 year period 1923-1939. There were, in Arizona, 77 such casualties, out of a total of 239 casualties of all classes, sustained in passenger train accidents by all persons, other than trespassers. In Nevada, during the same period, there were 18 such casualties out of a total of 109 similar casualties of all classes in passenger-train accidents.

There has been a substantial improvement in the frequency of passenger casualties on Class I railroads of the United States during the 17 years 1923-1939, the frequency rates of such casualties being, however, extremely small. In the period 1923-1928, the frequency of such casualties

per million passengers carried was 5.16. In the five years 1935-1939, such frequency was 5.0. On the passenger-mile basis, the improvement in the casualty rate, comparing these two periods, was 17.66%.

Comparing passenger casualties on appellant's lines in Nevada and Arizona, the operation in Nevada having been unrestricted, while in Arizona the 14 car limit has been abserved through the years up to and including 1939, a satisfactory basis of comparison is afforded to determine the effectiveness of the Arizona limitation as a regulation in the purported interest of safety of passenger-train operation. The casualty rates and the total of Casualties were substantially less in Nevada than in' Arizona, during the 17-year period 1923-1939. There were 239 casualties to persons while on or getting on or off passenger trains in Arizona during that 17-year period; but only 109 in Nevada. The casualty rates in Arizona were approximately twice as great as in Nevada. The Nevada totals and rates are greatly inflated, by reason of 53 casualties resulting from the derailment at Harney. Nevada, of August 12, 1939, involving a 14-car train, which derailment was solely due to malicious tempering with the : track, the appellant having had no responsibility for the accident or any means of avoiding it.

The Arizona 14-car limitation upon passenger trains bears no relation whatever to the safety of travelers of employees or others lawfully upon appellant's passenger trains in Arizona.

Casualties in grade-crossing accidents; considering the United States as a whole, bear a practically constant

relationship to the volume of train-service operated over such grade crossings, measured in train-miles. Over the 17 years 1923-1939, there were on the average 6.45 gradecrossing casualties, in accidents involving automobiles, per million train-miles operated; and in each year during that period the rate was very close to such average. Assuming the vehicular traffic over a grade-crossing to be constant, the hazard of grade-crossing accidents involving trains increases directly with the increased number of trains, using the crossing. This hazard is therefore increased substantially if additional and unnecessary trains are operated over, the crossing. Collisions occurring at silch crossings are a source of casualties, not only to the oscupants of vehicles, but also to the train crews and other persons on the trains or engines involved. The Train Limit Law, by requiring a greater number of trains to be run than otherwise necessary, increases the hazard of gradecrossing accidents in Arizona and the adjacent affected territory.

Considering freight-train derailments in Arizona, Nevada and New Mexico, the Train Limit Law not only does not bring about any reduction in the number and frequency of such accidents, but, by comparison with the results of operation in Nevada and New Mexico, results in an increased hazard over that resulting from the stand, and long-train method of operation.

There is no particular hazard of injury on long freight trains because of the emergency application of the air brakes by engineers. No reportable accident assigned to this cause has taken place in Nevada since 1936. In Arizona, during the 18-year period 1923-1940, there were nine

casualties assigned to emergency applications of brakes by the engineer, all of them on short trains. The application of the air brakes in emergency by an engineer on a freight train is a comparatively rare occurrence.

Casualties on freight trains due to undesired emergency applications of the air brakes, principally caused by light graduating springs in the triple-valve mechanism on the cars, have been practically eliminated, because of the compulsory use of heavier graduating springs, which largely prevent such undesired emergencies. Accidents on either long or short trains, due to undesired emergencies arising from this cause, are no longer a factor of material consequence.

During the period March 2 to April 30, 1940, when appellant operated 302 long freight trains and 62 long passenger trains in Arizona, there were seven accidents on passenger trains, all on trains operated in conformity with the law. There were no accidents or casualties on any of the 62 long passenger trains. There were seven accidents on or in connection with all of appellant's freight trains in Arizona, both long and short, in April, 1940. Four casualties were involved. All but one of these accidents involved short trains. The one accident involving a long train occurred while the train was standing.

Appellant's long-train operations in Arizona during March and April, 1940, were conducted without incurring any accident or casualty which could, or would, have been prevented or minimized if the law had been observed. None of the accidents during that period took place in circumstances where the length of the train had any bearing.

In 1939, there were some 2,693 employees on appellant's Tucson Division, whose safety while on duty is or might be affected in various aspects by the law. The law directly affects the opportunity for employment of train and engineservice employees on main-line freight and passenger trains only, because it compels a greater-number of trains to be operated and thus increases the number of men required in such train service. Only 644, or 23.9%, of the 2,693 Tucson Division employees are train and engineservice employees in main and branch-line service.

In so far as concerns safety, all train-service employees, and all others whose duties require them to go or be upon the tracks, are affected by the law, because the increase in number of trains run increases the hazard of accidents to such employees. These hazards include: (a) the danger of being struck and run down while on the tracks; (b) head and rear-end collisions; (c) locomotive accidents; (d) grade-crossing accidents; (e) slipping or falling while getting on or off trains. There are some 1,652 employees, or about 61% of all those on the Tucson Division, whose safety is thus impaired by the law:

Appellee's contention respecting the safety features of the law refers principally, if not solely, to potential slack-action injuries to train-service employees (not including enginemen) upon main-line freight trains. There were only 331 such employees, out of the total of 2.693, on the Tucson Division. This total is to be contrasted with the 1,652 employees whose safety of employment is impaired by the law.

The frequency of train and train-service accidents is directly related to the number of train units operated;

when more trains are run than necessary to handle a given amount of traffic, the hazard in the handling of such traffic is correspondingly increased. The law required 1938 about 31% more freight trains than actually were necessary on the Yuma-Gila-Lordsburg line alone, and compelled about 16,500 additional unnecessary meets and passes. It thus greatly increased the number of train orders, and the hazards due to misinterpretation or forgetfulness of such orders. It increased the number of employees required to move the same amount of traffic, and thus increased the hazards due to failure to observe rules or signals, and all the other classes of hazards related to the increased numbers of locomotives and train units operated, and tended to increase the hazard of accidents in yards, due to extra switching, and the hazards to maintenance employees who are required to be on tracks; andparticularly the hazards of grade-crossing accidents and collisions.

Even if short train operation might possibly result in any decrease in the number or severity of so-called "slack-action" casualties, that decrease is substantially more than offset by the increased number of accidents and casualties from other causes which follows the arbitrary limitation of trains and the consequent increase in the number required to handle the same volume of traffic. The law there fore not only bears no reasonable relation to safety, but on the contrary impairs and lessens substantially the safety of appellant's operations in Arizona and the adjacent affected territory.

(Finding of Fact No. XII, R. 3974-4022.)

10. Analysis of Certain Contentions Advanced by Appellee.

There is no evidence to support appeller's contention that trains would be delayed in long-train operation because of inadequate siding capacities at meeting and passing points. While siding capacities in the affected territory are not at present adequate in all cases to contain long trains, long-train operation in one direction or the other, but not in both directions at the same time, is perfectly feasible; moreover, if the restriction is removed, the sidings will be at once extended.

There is likewise no substance to appellee's contention that trains must be limited to 70 cars in order that members of the crew may see and interpret signals more readily. When a train is in motion, the only manual signal required is a stop signal; if such signal is given from the caboose and not seen by the engineer, the train may be stopped by the application of the conductor's emergency valve in the caboose. There can be no severe slack-action shock in the caboose in such cases. There is no evidence of any reportable casualty on appellant's lines from the use of the conductor's valve. When the train is at a standstill if signals from the rear are not seen, no accident can result through such failure; the signal can either be repeated, or a member of the crew can go forward to pass the signal to the engineer.

No reportable train-service accident has occurred on appellant's lines in Arizona or Nevada over the last 18 years due to failure to observe or properly interpret signals. One reportable train accident assigned to that cause occurred in those two states, during said period; but it

did not involve any casualties, and related only to the movement of a helper engine with two cars and a caboose.

There is, no substance to the contention that members of the crew in the cabooses of long trains are made less alert or efficient in performing their duties, because of claimed constant fear of injury. No evidence was offered to show that alertness or efficiency were thus impaired; in fact, the witnesses who testified respecting their alleged fear in cabooses of long trains have the right, by seniority choice, to work as conductors in the short-train territory between Yuma and Lordsburg; but for many years, by choice, they have worked in the long-train territory between Lordsburg and El Paso.

There is likewise no foundation for appellee's contention that long trains cannot be properly inspected and supervised while in operation, but that short trains can be, and that long-train operation is therefore more hazardous. Observation and inspection of trains in operation for the purpose of detecting defects or failures in the rolling equipment, can be and are as efficiently performed on long trains as on short trains. Reportable derailments due to defects in or failures of freight-car equipment are substantially less frequent in Nevada, in long-train operation, than in Arizona.

The purpose of inspection and observation of trains while en route is to detect such failures and take necessary action before an accident results. No witness who was called made or supported any claim that any accident had occurred upon a long train, as to which it was asserted made to appear that the accident could

have been avoided, or its effects lessened, if the train had been short. No accident was referred to by any of appellee's witnesses, due to a defect in or failure of a car on a long train, as to which it was claimed that the accident could have been prevented, or its effects lessened through inspection or observation, if the train had been within the restriction of the law.

There is no basis for appellee's contention that the present type of air-brake equipment is inadequate to control the speed of and to stop long frains, but is more efficient and adequate upon short trains. The witnesses called by appellee included conductors and engineers working in both long-train and short-train territory; one of these engineers, who had handled many long trains, admitted that their control simply required more care. Another who handled certain long trains in Arizona during April, 1940, said that he had used greater care in their handling, but admitted that he had no difficulty. None of the conductors referred to any instance when the engineer was unable to control the speed of or to stop his train. A Santa Fe engineer, called by appellee, failed to refer to any instance within his knowledge when an engineer had been unable to control or stop a long freight train with the present type of air brakes. This engineer, though having sufficient seniority to work regularly in short-train; territory in Arizona, has exercised his seniority to obtain and hold a preferred position in freight service in longtrain territory in California.

Appellant's engineer witnesses, men of long experience, testified that the handling of long trains by engineers,

and particularly the control and stopping thereof, though requiring somewhat more care, involved no greater difficulties than in the case of short trains.

The 302 long trains operated by appellant in Arizona during April, 1940, were controlled and stopped, so far as the record shows, without difficulty. As to many of these trains, it affirmatively appears that the handling was without difficulty or incident.

(Finding of Fact No. XIII, R. 4022-4032.)

11. Extent of Penalties Imposed by the Law.

If appellant had operated its trains in 1938 without regard to the law, it would have run about 7,800 long freight trains, and about 360 long passenger trains in Arizona. Its liability for cumulative penalties would thus have ranged from about \$816,000, to approximately \$8,160,000.

(Finding of Fact No. XIV, R. 4032.)

The Permissible Number of Cars in an Interstate Train Is a Subject of National and Not Local Concern.

The permissible number of cars in an interstate train is a subject of national and not local concern, and one which requires a general system or uniformity of regulation, if any be needed. It is a subject which therefore must, and should be, regulated by Congress, and not by the several states. It is wholly impracticable to construct and maintain railroad terminals exactly on state lines, or to split up or consolidate through trains except at terminals. Varying regulations of train lengths by the several

states, all of which would have extra-territorial effects similar to those of the Arizona law, would, if conflicting, result in serious interference, delay, and embarrassment to through interstate operations. Compliance with such varying standards of train length would likewise make useless the tremendous investment which has made long-train operation possible, and would cause the railroads to lose the efficiency and economies which have resulted therefrom.

(Finding of Fact No. XV, R. 4032-4033,)

IV.

SPECIFICATION OF ERRORS

- 1. The Supreme Court of Arizona erred in failing to hold that the Arizona Train Limit Law is invalid and unconstitutional, in violation of the Commerce Clause (Article I. Section 8, paragraph 3) of the Constitution of the United States, because said law undertakes to and does regulate a subject matter over which exclusive legislative insidiction is vested in Congress by said Commerce Clause, in that the length and consist of interstate railroad trains is a subject matter requiring a general or national system and uniformity of regulation, if such regulation should for any reason be required.
- 2. Said state court erred further in failing to hold said Train Limit Law invalid and unconstitutional, in violation of said Commerce Clause, because its necessary and inevitable effect is to regulate and control the lengths of the interstate trains operated over appellant's lines, not only

within Arizona, but also extra-territorially; that is to say, outside of Arizona, and in adjoining portions of California and New Mexico, and also in Texas.

- 3. Said state court erred further in failing to hold said Train Limit Law invalid and unconstitutional, in violation of said Commerce Clause, because its necessary and practical effect is directly, substantially and unreasonably to interfere with, delay, regulate and obstruct the operation of appellant's interstate trains, both within and without Arizona, and to impair the use and usefulness of appellant's facilities employed in interstate commerce.
- 4. Said state court erred further in failing to hold said law invalid and unconstitutional, in violation of said Commerce Clause, because its necessary and inevitable effect is to impose direct, substantial and unreasonable burdens upon interstate commerce as carried on by appellant, both within and without Arizona, and thus further to impair the use and usefulness of appellant's facilities employed in interstate commerce.
- 5. Said state court erred further in failing to hold and conclude that said Train Limit Law, to the extent that it has or may have, or is intended or claimed to have, the effect of limiting the number of cars in an interstate train to the maximum number which can be safely controlled or stopped in one train by the use of the types of air brakes now employed thereon, or any other type of train control or other safety device, is void and unenforceable against appellant, because it attempts to and does enter a legislative field already entered, and therefore occupied by Congress, and thereby conflicts with and infringes upon

Appliance Act, as amended, and the Safety Section (Section 25) of Part I of the Interstate Commerce Act.

Said state court erred further in failing to hold sald Train Limit Law unconstitutional and void, in violation of both the aforesaid Commerce Clause, and also the due-process clause of the Fourteenth Amendment to the Constitution of the United States, because said Train Limit Law operates arbitrarily and unreasonably to deprive appellant of its property without due process of law; in that said law (a) fixes maximum lengths of trains very much lower than those which obtain generally elsewhere throughout the United States under operating conditions substantially similar to those upon appellant's lines in Arizona; (b) makes no allowance for grade or other operating conditions, or for the construction, type, weight, or lengths of the cars composing the trains, or whether such cars are loaded or empty, or if loaded the weights of the loads; (c) imposes a great, substantial, and wholly unreasonable burden of expense upon, interference with, and delay to interstate commerce, and impairs the use and usefulness of appellant's transportation facilities; and (d) bears no reasonable relation to health or safety, and does not and will not either eliminate or to any substantial extent reduce any existing hazard, but on the contrary does and will create new and increase existing hazards and dangers of railroad operation.

7. Said state court erred further in holding and coneluding that said Train Limit Law is valid and constitutional, and that the "findings and judgment of the trial court to the effect that the Train Limit Law is unconstitutional were in error."

8. To the extent that the opinion and decision of said state court are or may be intended or construed to be a disapproval or reversal of the findings of fact of the trial court in this cause, or any part or portion of said findings of fact, said state court erred further in said opinion and decision, because the same, if and to the extent that they are or may be so construed or intended, operate to deny to appellant federal rights guaranteed by the Constitution and laws of the United States, to which it is shown by the evidence in this cause to be entitled.

V.

SUMMARY OF ARGUMENT

Introductory.

While the instant case is of first impression in this Court, there have been four prior case, in the Federal district courts involving state train-limit laws: A. T. & S. F. Ry. Co. et al. v. LaPrade (1933), 2 F. Supp. 855; Southern Pacific Co. v. Mashburn (1937), 18 F. Supp. 393; Texas & New Orleans R. Co. v. Martin (1936), U.S.D.C., E.D.La., No. 428-Equity (not officially reported); M. K. & T. R. Co. v. Williamson (1941), 36 F. Supp. 607.

In the LaPrade case the court declared invalid the same statute involved, in the present case; but its conclusions were given no effect because this Court, in Ex Parte LaPrade (1933), 289 U.S. 444, held that the suit had abated by reason of the substitution as defendant of the incoming

attorney general. In the Mashburn and Martin Cases the Nevada and Louisiana laws were respectively held invalid; in the Williamson Case; the Oklahoma law was sustained by a divided court.

Compare, also, Southern Pacific Co. v. Railroad Commission (1935), 10 F.Supp. 918, in which a state regulation requiring cabooses to be placed midway in interstate trains on a particular district was held invalid; and Ex Parte No. 156 (1943), 256 I.C.C. 523, in which the Interstate Commerce Commission declared that it had power, under the Car Service Clauses (pars. 10-17, of Section 1) of the Interstate Commerce Act, to suspend the state train-limit laws during the present war emergency.

1. The Train Limit Law Invades an Exclusive National Field of Regulation.

The principal objects of the Commerce Clause were and are to insure the national interest, as against conflicting and discriminatory state laws regulating interstate commerce, by providing for regulation of that commerce by a single authority as to all matters requiring a national and uniform system of regulation, and thereby guarding against obstructions to the free flow of such commerce. Brown v. Maryland (1827), 12 Wheel 419; Cooley v. Port Wardens (1851), 12 How. 299; Welton v. Missouri (1875), 91 U.S. 275; Mobile Co. v. Kimball (1880), 102 U.S. 691; Cook v. Marshall Co. (1904), 196 U.S. 261; Minnesota Rate Cases (1912), 230 U.S. 352; Port Richmond, etc. Ferry Co. v. Hudson Co. (1914), 234 U.S. 317; Parker v. Brown (1943), 317 U.S. 341; Union Brokerage Co. v. Jensen (1944), 322 U.S. 202. Compare, also: Wilmington Transp.

Co. v. Railroad Commission (1915), 236 U.S. 151; Oregon-Washington R. & N. Co. v. Washington (1926), 270 U.S. 87; Milk Control Board v. Eisenberg Farm Products (1939), 306 U.S. 346; United States v. South-Eastern Underwriters' Assn. et al. (1944), 322 U.S., 88 L.Ed. Adv. 1082.

The Congressional power to regulate commerce is exclusive whenever the subject matter is national in character. or admits of only one system or plan of regulation. Robbins v. Shelby Co., etc. (1887), 120 U.S. 489; Atlantic & Pacific Telegraph Co. v. Philadelphia (1903), 190 U.S. 160; Kelly v. Washington (1937), 302 U.S. i. Inaction or silence by Congress is equivalent to a declaration that no regulation of the subject is necessary. Hall v. DeCuir (1877). 95 U.S. 485; Welton v., Missouri (1875), 91 U.S. 275; Morrill v. Wisconsin (1894), 156 U.S. 626; Gloucester Ferry Co. v. Pennsylvania (1885), 114 U.S. 196; Covington & C. Bridge Co. v. Kentucky (1894), 154 U.S. 204; Leisy v. Hardin (1890), 135 U.S. 100; In re Rahrer (1891). 140 U.S. 545; Brennan v. Titusville (1894), 153 U.S. 289; Buck v. Kuykendall (1925), 267 U.S. 307; Bush v. Mallou (1925), 267 U.S. 317.

While there is a permissible, so-called "joint" or "concurrent", field of regulation of interstate commerce, in which states may act through the exercise of their police power in the absence of action by Congress touching the same subject matter, the determination whether a particular regulation falls within that field, or on the other hand invades the exclusive national field, depends upon the nature of the subject matter regulated, and the effect of

the regulation upon interstate commerce; and does not depend on the claimed or stated purposes of the regulation or its relation to that purpose. Minnesota Rate Cases (1912), 230 U.S. 352; South Covington Ry. Co. v. Covington (1915), 235 U.S. 537; Seaboard Airline R. Co. v. Blackwell (1917), 244 U.S. 310 Kansas City Southern Ry. Co. v. Kaw Valley Drainage Dist. (1914), 233 U.S. 75; Davis v. Farmers Coop. Co. (1923), 262 U.S. 312; Shafer v. Farmers' Grain Co. (1925), 268 U.S. 189; Parker v. Brown (1942), 317 U.S. 341; Union Brokeraye Co. v. Jensen (1944), 322 U.S. 202. A state cannot · avoid the operation of the rule arising from the Commerce Clause, which forbids the regulation of matters of exclusive national concern, by the simple expedient of invoking "the convenient apologetics of the police power." Kansas City Southern Ry. Co. v. Kaw Valley Drainage Dist. (1914), 233 U.S. 75.

The undisputed facts of the instant case demonstrate that the subject matter of the length and consist of interstate freight and passenger trains moving from one state to another, or from one state across an intervening state to a third, is a matter of exclusive national concern. Intolerable obstructions to and interferences with interstate commerce would follow if each state could and should impose varying and inconsistent limitations. Such regulations, because of their inevitable extra-territorial effects, would create constant difficulty and embarrassment. Compare Hall v. DeCuir (1877), 95 U.S. 485; South Covington Ry. Co. v. Covington (1915), 235 U.S. 537; Kelly v. Washington (1937), 302 U.S. 1; and see also the LaPrade, Mashburn, and California Midtrain Caboose Cases, supra.

Service Order No. 85 of the Interstate Commerce Commission, suspending state train-limit laws during the present war emergency, constitutes a clear recognition of the exclusive national character of the subject matter.

The decisions in A. C. L. R. Co. v. Georgia (1914), 234 U.S. 280; New York, etc. R. Co. v. New York (1897), 165 U.S. 628; and Smith v. Alabama (1888), 124 U.S. 465, do not support any view that a state police power regulation is valid if it directly and substantially interferes with and obstructs interstate commerce, or regulates a subject matter of such nature as to require a national and uniform system of regulation. These cases simply present examples of regulations in the concurrent field, having incidental and indirect effects upon commerce, which thus were valid in the absence of action by Congress. Compare: I. C. R. Co. v. Illinois (1896), 163 U.S. 142; Minnesota Rate Cases (1912), 230 U.S. 352; M. K. & T. Ry, Co. v. Texas (1918), 245 U.S. 484; Southern Ry. Co. v. Indiana (1915), 236 U.S. 439.

The Arkansas Full Crew Cases (C. R. I. & P. Ry. Co. v. Arkansas (1911), 219 U.S. 453; St. Louis I. M. & S. Ry. Co. v. Arkansas (1916), 240 U.S. 518; Missouri-Pacific R. Co. v. Norwood (1931), 283 U.S. 249), which involved the validity of the Arkansas Full-Crew Law, likewise have no bearing upon the national-field point. The Barnwell Case (South Carolina Highway Dept. v. Barnwell Bros. (1938). 303 U.S. 177), and other recent motor carrier decisions (Morris v. Duby (1927), 274 U.S. 135; Sproles v. Binford (1932), 286 U.S. 374; Maurer v. Hamilton (1940), 309 U.S. 598) are clearly distinguishable from the case at bar. In

the Barnwell and Maurer opinions this Court pointed out the difference in both principle and practice between state regulations covering the use of state highways, and the regulation of railroads (303 U.S., at pp. 186, 187; 309 U.S., at pp. 604, 605).

2. The Train Limit Law Regulates Interstate Commerce With Extra-Territorial Effect.

The extra-territorial effects of the law are inevitable and unchallenged. Compliance with its terms requires trains to be made up and broken up at points outside of Arizona, causes delays to trains and cars outside the state, and compels short-train operation for substantial distances in neighboring states. Additional train service outside the state, otherwise unnecessary, thus also results from the law.

A state police-power statute which unavoidably regulates the conduct of interstate commerce in other states is clearly invalid: Hall v. DeCuir (1877), 95 U.S. 485; South Covington Ry. Co. v. Covington (1915), 235 U.S. 537; Bowman v. C. & N. W. Ry. Co. (1888), 125 U.S. 465; and compare: Pennoyer v. Neff (1877), 95 U.S. 714; Olmsted v. Olmsted (1910), 216 U.S. 386; Baldwin v. Seelig (1935), 294 U.S. 511; Connecticut, étc. Ins. Co. v. Johnson (1938), 303 U.S. 77; Magnolia Retroleum Co. v. Hunt (1943), 320 U.S. 430; McLeod v. Dilworth Co. (1944), 322 U.S. 327.

The proper limitation of the state's police power to its own territorial jurisdiction has often been emphasized: Minnesota Rate Cases (1912), 230 U.S. 352; Milk Control Board v. Eisenberg Farm Products (1939), 306 U.S. 346; compare: Sproles v. Binford (1932), 286 U.S. 374, 390;

South Carolina Highway Dept. v. Barnwell Bros. (1938), 303 U.S. 177, 185. The recent decision in Terminal R.R. Assn. v. Brotherhood (1943), 318 U.S. 1, does not militate against our contention. The extra-territorial effects of the regulation there sustained were apparently inconsequential: i.e., at most merely "incidental and indirect." Here the extra-territorial burdens and obstructions imposed by the challenged law are inevitable, substantial, and direct.

3. The Train Limit Law Directly; Materially, and Substantially. Interferes With, Burdens and Obstructs Interstate Commerce.

A state police-power regulation, even though assertedly addressed to a subject within the concurrent field, is invalid if it directly, materially, and substantially regulates, interferes with, burdens, and obstructs interstate commerce. Illinois Central R. Co. v. Illinois (1896), 163 U.S. 142; Kansas City Southern R. Co. v. Kaw, Valley Drainage Dist. (1914), 233 U.S. 75; South Cavington R. Co. v. Covington (1915), 235. U.S. 537; St. L.-S. X. R. Co. v. Public Service Commission (1921), 254 U.S., 535; Adams Express Co. v. New York (1913), 232 U.S. 14; Seaboard Airline R. Co. v. Blackwell (1917), 244 U.S. 310; Davis v. Farmers Coop. Co. (1923), 262 U.S. 312; La Coste v. Dept. of Conservation (1924), 263 U.S. 545; Foster-Fountain Packing Co. v. Haydel (1929), 278 U.S. 1; California v. Thompson (1941), 313 U.S. 109; Parker v. Brown (1942), 317 U.S. 341.

The commerce affected by the challenged statute is admittedly interstate in character. The fact that the statute is assertedly, or even actually, a safety regulation will not save it if the Court determines that in fact it infringes

the above principle. Compare Kauss s City Southers R. Co. v. Kaw Valley Drainage Dist. (1914), 233 U.S. 75; St. Louis & San Francisco Ry. Co. v. Public Service Commission (1921), 254 U.S. 535; Seaboard Airline R. Co. v. Bisckwell (1917), 244 U.S. 310; Edwards v. California (1941), 314 U.S. 160; M. K. & T. R. Co. v. Texas (1918), 245 U.S. 484; St. Louis Southwestern Ry. Co. v. Arkansas (1910), 217 U.S. 136; Shafer v. Farmers Grain Co. (1925), 268 U.S. 189. The Court has both the right and duty fo make the necessary factual determination for itself. Milk-Control Board v. Eisenberg Farm Products (1939), 306 U.S. 346; La Coste v. Dept. of Conservation (1924), 263 U.S. 545; Foster-Fountain Packing Co. v. Haydel (1929), 278 U.S. 1; Parker v. Brown (1942), 317 U.S. 341.9

The actual obstructions, burdens, interferences or delays imposed by the challenged law are substantial, direct, continuous, and unavoidable. The heavy continuing financial burden, as found by the trial court (Finding X-d, R. 3966) is conceded by the state Supreme Court to be very large (R. 4063). The interference, delay and obstruction are equally serious (Findings X-b, X-c, R. 3953-3966; and compare the trial court's memorandum opinion, R. 4048-4049). The Interstate Commerce Commission has found that the law causes delay, congestion, and wasteful use of equipment, and interferes with the free flow of traffic: see Service Order No. 85, and the subsequent report of the Commission, 256 LCC, 523, 535.

The burdens and obstructions imposed upon commerce by the law wholly outweigh any possible safety benefits which may be claimed to result from its enforcement. Such "benefits," whether consideration be given only to the so-called "slack action" hazard (a minor and relatively unimportant class of hazard), or to all hazards, are very slight at best, and indeed are actually detriments; the record being clear that in unrestricted operation there is much less hazard, and a much smaller casualty frequency, than under the compelled short-train operation.

4. The Train Limit Law Invades a Field of Regulation of Interstate Commerce Fully Occupied by Congress.

A state-police power regulation affecting interstate commerce, even though otherwise valid; is automatically ousted if it comes into conflict with any Federal statute or regulation covering the same subject matter. A state cannot validly enact legislation imposing additional or supplementary requirements or prohibitions. Oregon-Washington R. & N. Co. v. Washington (1926), 270 U.S. 87; Southern Ry. Co. v. Reid (1912), 222 U.S. 424; Northern Pacific R. Co. v. Washington (1912), 223 U.S. 370; Erie R. Co. v. New York (1914), 233 U.S. 671; Missouri Pacific R. Co. v. Stroud (1925), 267 U.S. 404; C. R. I. & P. R. Co. v. Elevator Co. (1913), 226 U.S. 426; Napier v. Atlantic Coast Line R. Co. (1926), 272 U.S. 605; Penr. sylvania B. Co. v. Public Service Commission (1919), 250 1.8. 566. The field of safety of railroad operation as affected by train length has been occupied by Congress through the enactment of the power-brake provisions of the Safety Appliance Act (45 U.S. Code, Secs. 1, 9), and the safety section of the Interstate Commerce Act (49 U.S. Code, Sec. 25). The power-brake provisions for I'd the oper-

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ation of any train so long or heavy that it cannot be safely controlled, handled, and stopped in its ordinary operation by the use of the air brakes. Virginian R. Co. v. United States (1915), 223 Fed. 748. The Commission has investigated the matter of freight-train brakes (Investigation of Power Brakes, etc. (1924), 91 I.C.C. 481), and recently announced its intention to issue an order providing specifications for such brakes and requiring their application; such specifications, among other things, expressly contemplate trains of 150 cars.

There is no distinction in purpose or result between the challenged law, and the two Federal statutes mentioned. Appellee's position is shown, by its own testimony and argument, to be that in the interest of safety long trains must be prohibited because with the present brakes the engineers cannot safely handle, control, and stop such trains. The decision in the Virginian case, 223 Fed. 748, shows that this is the purpose and result of the Safety Appliance Act. The Commission's action under Section 25 of the Interstate Commerce Act is likewise for the same purpose. The state law conflicts with the Federal acts by prohibiting the operation of trains which are lawful under the latter, because not unsafe or impossible to control: e.g., the 302 long freight trains and 62 long passenger trains actually operated in Arizona in March and April, 1940. In effect the state is attempting to substitute a fixed limit, applied regardless of attendant circumstances, for the judgment of a Federal court and jury based upon the particular facts developed in a prosecution under the Safety Appliance and Interstate Commerce Acts.

5. The Train Limit Law Operates Arbitrarily and Unreasonably to Deprive Appellant of Its Property Without Due Process of Law.

The heavy cost to appellant of compliance with the challenged law, though not controlling, may and should be considered, and contrasted with the completely negligible safety benefits flowing from such compliance. Washington, etc. v. Fairchild (1912), 224 U.S: 510; Missouri-Pacific R. Co. v. Norwood (1931), 283 U.S. 249; A. T. & S. F. Ry. Co. v. Railroad Commission (1931), 283 U.S. 380; Missouri-Pacific R. Co. v. Kansas (1910), 216 U.S. 262: Lehigh Valley R. Co. v. Commissioners (1928), 278 U.S. 24. The only "benefit" seriously claimed is that slack-action casualties to freight trainmen are rendered less frequent and severe. Casualties of this type are relatively unimportant, constituting only about six percent of all the employee casualties occurring in freight-train operations. Even this claim has no factual basis; whereas it is clearly shown that all other classes of hazards to employees, as well as the grade-crossing hazard to non-employees, are greatly increased.

While there is a presumption of reasonableness normally favoring a police-power statute, it is not conclusive, but may be overcome by a proper showing: The courts are not precluded from examining the facts, by reason of any implied or expressed legislative declaration. Nebbia v. New York (1934), 291 U.S. 502; Dobbins v. Los Angeles (1904), 195 U.S. 223; Lawton v. Steele (1894), 152 U.S. 133; Mugler v. Kansas (1887), 123 U.S. 623; Minnesota v. Barber (1890), 136 U.S. 313. Compare: N. C. & St. L. v. Walters (1935), 294 U.S. 405; Southern Ry. Co. v. Virginia (1933), 290 U.S. 190; Liggett Co. v. Baldridge (1928), 278

J.S. 105; St. Joseph Stockyards Co. v. United States (1936), 298 U.S. 38; and see also, as showing that the presumption is merely prima facie: Great Northern Ry. Co. v. Washington (1937), 300 U.S. 154; O'Gorman & Young v. Hartford Ins. Co. (1931), 282 U.S. 251; Pacific States, etc. Co. v. White (1935), 296 U.S. 176; United States v. Carolene Products Co. (1938), 304 U.S. 144, Furthermore, a law valid when enacted may become invalid because of lapse of time and changed conditions, as in the case at bar: N. C. & St. L. R. Co. v. Walters . (1935), 294 U.S. 405; Albee State Bank v. Bryan (1931); 282 U.S. 765; Galveston Elec. Co. v. Galveston (1922), 258 U.S. 388; and if actual changes in conditions are shown, the presumption is no longer available. South Carolina Highway Dept. v. Barnwell Bros. (1938), 303 U.S. 177; Clark v. Paul Gray . (1939), 306 U.S. 583; United States v. Carolene Products Co. (1938), 304 U.S. 144. The state court erred in failing to recognize and apply these principles to the case at bar; compare N. C. & St. L. R. Co. v. Walters (1935), 294 U.S. 405, 414-415. The record here shows vast changes in the relevant conditions since the date when the law was enacted. The extent and character of these changes could not possibly have been foreseen by the Arizona legislature of 1912.

"Common belief" may be, and in many cases has been, given weight in considering the validity of challenged legislation. "Jacobson v. Massachusetts (1905), 197 U.S. 11; Muller v. Oregon (1908), 208 U.S. 412; Bunting, v. Oregon (1917), 243 U.S. 426; West Coast Hotel Co. v. Parrish (1937), 300 U.S. 379; Parker v. Brown (1943), 317 U.S. 341. In the case at bar, common belief is overwhelmingly opposed to the principle of the law. Such

statutes have been enacted in only four of the 48 states, and enforced in only two. Congress has several times rejected proposed federal legislation fixing arbitrary maximum train-lengths. The long-train operating method has never been condemned by, but on the contrary has received at least inferential approval from the Interstate Commerce Commission, and is now standard all over the United States, except in Arizona and, recently, Oklahoma. The common opinion of the railroad industry thus clearly favors long train operation. The only opposing opinion is that held by railroad employes in train and engine service, who constitute only a minority of those whose duties expase them to the hazards incident to train operation. The financial interest of this minority is favorably affected by train limit laws, because of increased employment opportunities. The remainder of the employes exposed to train operation, whose hazards of employment are needlessly increased by the increased number of trains run, certainly cannot be said to favor train limitation.

Service Order No. 85 reflects informed opinion respecting the adverse results of train-limit laws, and particularly their lack of merit from the safety standpoint. Compare Ex Parte No. 156, 256 I.C.C. 523, 536.

A purported safety measure which bears no reasonable relation to that purpose, but actually creates and increases hazards—as does the Train-Limit Law—is unreasonable and invalid under the Due-Process Clause of the 14th Amendment: Mugler v. Kansas (1887), 123 U.S. 623: Minnesota v. Barber (1890), 136 U.S. 313; Liggett Ca. v. Baldridge (1928), 278 U.S. 105; Washington, etc. v. Roberge (1928), 278 U.S. 116; C. St. P. M. & O. Ry. v. Holmsberg (1930), 282 U.S. 162; Nashville C. & St. L. R. Co. v.

Walters (1935), 294 U.S. 405; Treigle v. Acme Homestead (1933), 297 U.S. 189. This principle has been recognized by the state court in its own earlier decisions, hich, however, were wholly disregarded in the present case. State v. Childs (1927), 32 Ariz. 222; Atchison, etc. Ru. Co. v. Arizona (1928), 33 Ariz. 440; State v. Borah (1938), 51 Ariz. 318; Buehman v. Bechtel (1941), 57 Ariz. 653. The facts of record relative to safety as affected by the limitation (see Findings Nos. XI, XII, and XIII, R. 3969-4032) demonstrate that the Train-Limit Law does not reduce any hazard, even the limited and unimportant class associated with slack-action, but increases substantially—and as to some bazards actually multiplies the frequency—the hazards and casualties of railroad operation. The trial court declared (R. 4052): "as a matter of cold fact" the law makes "train operations more dangerous."

6. The Decision of the State Court, if Construed as a Reversal of the Trial Court's Findings of Fact, Operates to Deny to Appellant Federal Rights to Which It Is Shown by the Evidence to Be Entitled.

The lower-court declared (R. 4067-4068) that its opinion expresses its reasons for holding that the trial court's findings "to the effect that the Train-Limit Law is unconstitutional were in error." This expression should not be construed as a reversal of the trial court's findings of fact, because: (1) the opinion contains no discussion of the facts in the case; (2) the state court itself, in many decisions, has stated and followed the rule that findings of fact by a trial court will not be reconsidered on appeal unless clearly erroneous, and did not here/declare that it

was departing from that rule; (3) the mandate (R. 4072-4073) did not direct that the findings of fact be modified or vacated, and the judgment upon the mandate (R. 4073-4074) did not contain any expression vacating Such findings; (4) there were no actual findings of fact "to the effect" that the law is unconstitutional.

If, nevertheless, the state court's expression is held to constitute a reversal of the trial court's findings of fact, the rule becomes applicable that where a claim of Federal rights has been made, and denied because of a factual holding by a state court, which is not properly supported by the evidence, this Court will examine the record for itself, and will not be concluded by the state court's determination. Kansas City_Southern R. Co. v. Albers Commission Co. (1912), 223 U.S. 573; Northern Pacific R. Co. v. North Dakota (1915), 236 U.S. 585; Norfolk & West ern R. Co. v. Conley (1915), 236 U.S. 505; Actna Life Ins. Co. v. Dunken (1924), 266 U.S. 389; Truax v. Corrigan (1921), 257 U.S. 312; Norris v. Alabama (1935), 294 U.S. 587; Great Northern Ry. Co. v. Washington (1937); 300-U.S. 154; United Gas Co. v. Texas (1938), 303 U.S. 123; Pierre v. Louisiana (1939), 306 U.S. 354; Smith v. Texas (1940), 311 U.S. 128; Milk Wagon Drivers' Union v Meadowmoor Dairies (1941), 312 U.S. 287.

In the instant case there is no real conflict of evidence: the showing is largely statistical, drawn from or based upon official sources and permanent railroad records, and thus of the same type approved by this Court in Railroad Retirement Board v. Alton R/Co. (1935), 295 U.S. 330. As shown in detail elsewhere (in Volume II hereof), the

trial court's findings accurately reflect and are fully supported by the record.

VI.

ARGUMENT

INTRODUCTORY STATEMENT

(Reviewing the various recent lower-court cases in which, with one. exception, train-length regulations have been disapproved.)

The instant case is one of first impression in this Court, in that no previous case has been here presented in which there has been directly involved and decided the question of the validity of a state law limiting the length of interstate railroad trains. There have, however, been four such cases in the federal district courts, and also a fifth case involving a closely related question, likewise decided by a federal district court. The question was also considered by the Public Service Commission of Kansas and by the Supreme Court of that State. Quite recently, certain aspects of the general question have been considered by the Interstate Commerce Commission. As a preliminary to our argument, we shall discuss these several cases briefly:

The first of the series of cases in the federal courts, in point of time, and as well its relation to the present case, is the First Arizona Train-Limit Case, reported as:

A. T. & S. F. Ry. Co., et al. v. LaPrade (1933), 2
 F.Supp. 855.

This decision is referred to in the opinion of the State court in the case at bar (R. 4061-4062), and also in the dissenting opinion (R. 4071).

In that case the plaintiff railroad companies directly assailed the same statute the validity of which is here challenged, and urged the same grounds of invalidity. The special three-judge court rendered a unanimous opinion, holding the statute void, on each and all of the following grounds (2 F.Supp., pp. 862-863):

"first, it invades the exclusive legislative field of Congress, as limited by the Commerce Clause (paragraph 3, Sec. 8, art. 1) of the Constitution of the United States; second, it is in conflict with the train service clause of the car service provisions (paragraphs 10 to 17, inclusive, and paragraph 21 of section 1) of the Interstate Commerce Act; third, it is in conflict with and amounts to an unlawful attempt to supplement the Boiler Inspection Act, as amended, the power brake provisions of the Safety Appliance Acts, and section 26 of the Interstate Commerce Act,... which operate upon the subject and are directed to the same object as the said Train-Limit Law, and by which Congress completely and exclusively occupied the train-length field; fourth, because it substantially and unreasonably impairs the usefulness of plaintiff's facilities; fifth, because it is an undue and unreasonable burden upon and direct interference with interstate commerce, in violation of said Commerce Clause: sixth, because it is so unreasonable as to deprive plaintiffs of their property without due process of law, in violation of the due-process clause of section 1 of the Eourteenth Amendment to the Constitution of the United States; seventh, that it is arbitrary and bears no reasonable relation to the safety of persons . or property."

The conclusions expressed by that opinion were given no effect solely because of the holding of this Court in Ex parte LaPrade (1933), 289 U.S. 444, 77 L.ed. 1311, which decided that the suit had abated because of the substitution of the incoming attorney general for the original defendant. This Court considered no other question.

In the instant case appellant alleged and urged, and the trial court held, that the law is invalid and unconstitutional for substantially the same reasons as in the First Arizona Case. Compare paragraphs 8 to 12, inclusive, of Part III of the answer (R. 24-27), and Conclusions of Law Nos. II to VII, inclusive, adopted by the trial court (R. 4035-4038).

The second of the train limit cases is the Nevada Train-Limit Case:

> Southern Pacific Company v. Mashburn (1937), 18 F.Supp. 393,

also cited in the two opinions rendered by the judges of the State Supreme Court (R. 4061, 4071).

In that case this appellant, as plaintiff, attacked the Nevada train-limit statute of 1935, which was apparently modeled after the Arizona law, having been very similar in both language and purport, except that (a) it contained a statement of its purpose ("safety"), and (b) it did not limit the lengths of passenger trains.

The special three-judge court held the law invalid and unconstitutional; and for exactly the same reasons which were arged before and sustained by the trial court in the instant case. The court said, in its unanimous opinion, among other things, that the challenged law bore—"no reasonable relation to safety, but if enforced would impair

and lessen the safety of plaintiff's present method of freight-train operation in Nevada' (18 F.Supp. 394). No appeal was ever taken from the decision, and the Nevada law has never been complied with or enforced.

The third of the train-limit cases arose out of complaints severally filed by eight Louisiana railroads, attacking a statute of that state (enacted in 1936) limiting freight trains to 70 cars, exclusive of caboose, and passenger trains to 16 cars, and providing heavy cumulative penalties. The case was presented to a special three-judge court sitting in the Eastern District of Louisiana at New Orleans upon plaintiffs' motions for interlocutory injunctions. The evidence consisted entirely of the supporting and opposing affidavits. The case is unreported, but is identified upon the record of the court as:

Texas & New Orleans R. Co. v. Martin, et al. (1936), No. 428—Equity (and companion cases).

Following the submission, the court, with the concurrence of all the judges, ordered interlocutory injunctions to issue as prayed, which injunctions were later made permanent; the court announcing that, unless an appeal was taken, no formal findings or conclusions would be filed. No appeal was ever taken, and consequently no formal opinion has ever been rendered, nor any formal findings or conclusions filed; but the Louisiana law, like the Nevada law, stands adjudged to be invalid, and has never been observed or enforced. The reasons advanced by the plaintiffs in support of their attack on the law, and which the court apparently considered sound and well taken, were

substantially the same as in the prior train-limit cases, and in the present case.

The fourth of these cases is the Oklahoma Train-Limit

M. K. & T. R. Co. v. Williamson (1941), 36 F.Supp.

In that case one of the Oklahoma railroads challenged the Oklahoma Train-Limit Law enacted in 1937. The Oklahoma law is exactly like the Nevada law, except for the range of penalty; i.e., the law prohibits the operation of trains of more than 70 cars, exclusive of caboose, but does not mention passenger trains. This case, like the Louisiana Case, was heard on affidavits presented in support of and opposition to the motion for an interlocutory injunction; it being stipulated that the determination on the motion for interlocutory relief should also govern as to final relief. The majority of the special three-judge court rendered an opinion sustaining the law; the third judge dissented sharply from his associates, in an opinion (36 F. Supp. 616-617) in which he referred to the conclusions reached in the First Arizona and Nevada Cases, and declared his belief that the Oklahoma law was invalid for the reasons therein stated.

The opinion of the court of the Oklahoma Case is quoted at considerable length in the majority opinion of the state court in the instant case, having been apparently regarded by the judges as the controlling authority in the premises (R. 4062, 4063-4066).

The fifth case of this series, which involved the validity, not of a state train-limit law, but of a very similar at-

tempted restriction upon interstate trains and commerce, is:

Southern Pacific Co. v. Railroad Commission of California (1935), 10 F.Supp. 918.

That case (hereinafter referred to as the "Mid-Train Caboose Case") involved the following facts: The defendant Commission had ordered that each of the plaintiff company's trains of more than 50 cars, moving between Roseville and Calvada (the California-Nevada boundary) during the six winter menths (October 1st to March 31st), be operated with an additional caboose, to be placed midway in the train. The purpose was to provide a comfortable place wherein brakemen could ride and observe the train operation, during cold or severe weather. The company's rules required brakemen to ride out upon their trains, while descending the steep grades between Roseville and Calvada, so as to observe the operation.

The Commission's order was held invalid and unconstitutional, and its enforcement permanently enjoined, for the following reasons:

(1) Entry into a field of regulation, vested in Congress by the Commerce Clause, the subject of the consist of interstate trains being one which, if regulated at all, should be regulated by the Federal Government; (2) regulation of, and interference with, the continuous movement of plaintiff's interstate freight trains in both Nevada and California; (3) imposition of burdens; amounting to an interference, upon interstate trains; (4) extra-territorial regulation, in that the order, if enforced, would regulate interstate freight trains in Nevada, as far east as Sparks:

and (5) unreasonableness and arbitrary character of the order, particularly in that it would not eliminate hazards, but would tend instead substantially to increase the hazards of train operation in the affected territory, and thus violate the Commerce Clause, and the Due-Process Clause of the XIV Amendment.

In its opinion, the three-judge court referred with approval to the opinion in the First Arizona Train-Limit Case. No appeal was ever taken from the decision.

The Kansas proceedings in which the question of trainlength regulation by the State was considered are covered by the reported opinion of the Supreme Court of that State in:

State, etc. v. A. T. & S. F. Ry. Co., et al. (1928), 125 Kan. 586; 264 Pac. 1056.

The opinion shows that two train-service brotherhoods in Kansas had initiated proceedings before the Public Service Commission, looking to the limitation of freight and passenger train lengths; that the Commission had undertaken an exhaustive investigation, as a result of which it rendered elaborate findings and conclusions. It appears, from the text of the opinion, that the contentions of the brotherhoods were substantially the same as those advanced by appellee here.

The Commission recognized the impracticability of the regulation by a state of the lengths of interstate trains. The following significant portion of its findings was quoted by the Kansas Supreme Court in its opinion:

"It is impracticable to direct that trains engaged in interstate commerce should, when arriving at the

Kansas state tine, divide into two or more portions, each portion to be attached to an engine and caboose and manued with sufficient employes to conduct it as a train across the state. To do so would not be in the interest of economy. Locomotives, bridges, and tracks have been constructed and equipped for the purpose of hauling larger and heavier loads, thus decreasing materially the cost of operation. Economy in operation of trains, consistent with efficiency, is not only encouraged but demanded by state and national regulatory bodies. The employment of additional men in train service invites additional hazard to men, in that, as the number of employes is increased, the possibility of injury to a greater number is increased. The operation of a greater number of . trains would perforce increase the hazard to the publie at large at grade crossings, and accidents of this character constitute a large per cent of the serious railroad accidents of today. .

"The evidence introduced berein does not by a preponderance thereof, show that accidents to employes, incurred by reason of operation of trains in Kansas, have unduly increased during the past few years solely because of the increase in length of trains. Neither has it been shown that accidents to passengers riding on such long trains have increased."

In each of the cited cases the statute or regulation proposed or under attack was attempted to be defended upon the ground that it was a necessary health and safety measure, undertaken and required in the interest of the health, and especially the safety, of person's particularly train-service employees, upon freight and passenger trains. The appellee's attempt to justify the law in the instant case partakes of substantially the same character.

It may be noted that the four federal train-limit cases were heard before twelve different federal judges, five of whom were circuit judges and seven district judges. Three of the circuit judges and all of the district judges, or ten federal judges in all, agreed that state train-limit laws exactly or essentially similar to the challenged law are invalid, upon precisely the same constitutional grounds urged in the present case. Only two of these twelve judges have taken a contrary view.

Three of the ten federal judges mentioned also concurred in reaching the same result with respect to a state regulation not differing in principle from a train-limit law; although, of course, neither the volume of the traffic affected, the character and extent of the obstruction imposed, nor the financial burden was as severe and wide-spread as in the train-limit cases.

The expressions of the Interstate Commerce Commission to which we refer are contained in its report entitled:

Ex Parte No. 156: In the Matter of Service Order No. 85 (1943), 256 I.C.C. 523.

That report was rendered by the full commission, in denying a petition filed by the four major railroad trainservice brotherhoods, seeking to have the Commission set aside its Service Order No. 85, dated September 11, 1942, the full test of which is set forth on pages 5-6 hereof), in which the Commission had ordered railroad common carriers subject to the Interstate Commerce Act to separate their trains, when necessary, without regard to any state laws, rules, or regulations, limiting the number of

cars in railroad freight or passenger trains. Service Order No. 85 was issued by the Commission pursuant to the emergency powers created by the Car Service Clauses (pars. 10 to 17(a) of Section 1, of Part I of the Interstate Commerce Act), and had been attacked by the brother hoods as in excess of the powers conferred by those provisions. In its report, the Commission, after referring to the several state train-limit laws, and to various decisions of this Court, said (256 I.C.C., pp. 530-531):

"If State laws limiting the number of cars in trains are to be held valid (a question we do not decide), it would be possible for each State to set a different number of cars as the maximum to be hauled in a train. A State might even limit the length of trains to one car, although such a law would be clearly arbitrary and unreasonable. Higher limits might be set by States and found reasonable, but lack of uniformity would place a serious burden on interstate commerce."

Again, after referring to this Court's opinion in California v. Thompson (1941), 313 U.S. 109, 85 L.ed. 1219, the Commission said (at page 534):

"This language is significant because train-limit laws are not matters of local concern and the regulation of the number of cars which may be put in a train does infringe the national interest in maintaining the free flow of commerce under the present emergency war conditions." (Emphasis ours.)

We quote these expressions because of their direct hearing upon the first of the major legal propositions discussed in this argument: namely, that the field of regulation of the length and consist of interstate railroad trains is one which involves the national inferest and therefore belongs exclusively to Congress, under the Commerce Clause, since it demands a national and uniform system of regulation, if any be required at all. It is significant that the Interstate Commerce Commission, with its expert knowledge of the intricate problems presented by the various phases of railroad regulation, should have expressed itself so forcefully upon this particular point.

Although obviously the several decisions cited above are closely in point in the instant case, we may assume that appellee will object vigorously to any consideration by this Court of any of them other than, of course, the Oklahoma Case. The cases were cited at length to both the trial court and the State Supreme Court, and in its briefs in those courts appellee sharply criticized such citations. Thus, referring particularly to our citation of the First Arizona Train-Limit Case, appellee reminded the state court that Mr. LaPrade, the Attorney-General in office at the time the oral argument was heard before the three judge court, had vigorously objected to having been substituted for his predecessor in office against whom the suit had, originally been brought and, when the district court overruled his objection, declined to participate further in the argument and withdrew from the court-room. Appellee argued that the decision was thus merely ex parte because rendered without the participation of the nominal

defendant. While it is true that Mr. LaPrade and his counsel did not take part in the oral argument, it is likewise true that elaborate briefs on the merits were filed with the court by his counsel, so that the court was fully apprised of their position and did not proceed to final judgment upon the sole basis of the showing and argument of the railroad-plaintiffs. The decision was in no sense ex parte, but on the contrary was rendered only after full consideration of the merits of the case and full opportunity to the defendant to participate. While the decision was given no effect, solely because of this Court's conclusion that the substitution of the incoming Attorney-General was improper, the conclusions of the court one the merits are not for that reason to be regarded as a mere nullity. At least two other courts whose decisions were rendered subsequent to this Court's ruling in the matter have regarded as sound the views on the merits expressed in the opinion. It was cited with approval in both the California Mid-Train Caboose Case, 10 F, Supp. 918, 925, and the Nevada Train-Limit Case, 18 F. Supp. 393. None of the judges who heard and decided the Nevada Case had participated in the First Arizona Case.

In commenting upon the <u>Nevada Case</u>, appellee has suggested that that decision can hardly be regarded as persuasive in the instant case because, so it says, each of these cases must rest upon its special facts and be decided upon its own record. We may agree with appellee that each case stands on its own record; in fact, it was for that very reason that, the <u>Master who heard the Nevada Case</u> and the three Federal judges before whom it was argued having decided, upon the basis of the record there

made, that the Nevada 70-car law was unconstitutional upon substantially all of the grounds urged as a matter of defense in the instant case, appellant undertook to present here a record as nearly as possible the counterpart of the Nevada record: In nearly all of its most important aspects the testimony presented by appellant in the present case is of the same character as in the Nevada Case, except, that the statistical showings were brought down to date so as to include 1939, and 1940 where possible; whereas in the Nevada Case the latest year for which statistics were available was 1935. It may properly be said that in every feature the evidentiary showing made by appellant in the present case corresponds to the showing made by it as the plaintiff in the Nevada Case. Since there is no distinction in principle, it is beyond question that the Nevada Case affords a persuasive precedent in the instant case, and one which, we respectfully submit, should be given full weight by this Court.

1. -

THE TRAIN-LIMIT LAW INVADES AN EXCLUSIVE NATIONAL FIELD OF REGULATION.

(Assignment of Error No. 1)

The first subdivision of this argument is addressed to the general proposition that the challenged law is invalid, as an infringement upon and violation of the Commerce Clause, because it constitutes a regulation by the State of a subject-matter which in its very nature is of national and not merely local concern, requiring a uniform system of regulation, if any be needed, and therefore exclusively subject to the regulatory powers granted to Congress by the Commerce Clause: This proposition was expressed in Conclusion of Law No. II adopted by the trial court (R. 4035), the substance of which is as follows:

The law constitutes an invalid exercise of the police power of the State, in the purported interest of safety, by regulating that which, if regulation be needed at all, is not subject to regulation by any of the states, but is solely of national concern, and subject only to the regulatory power of Congress under the Commerce Clause; that is to say, the number of cars that may lawfully be operated in a single train moving in interstate commerce, and operated by an interstate carrier in the continuous movement of such commerce from, to, or through Arizona. Such invalidity attaches, even though Congress may not have taken any action heretofore with respect to the specific subject, because the subject-matter—the length and consist of interstate trains-is one which requires a national or uniform system of regulation, if any be required.

We emphasize that, in considering this point, it is unnecessary for this Court to take into account whether the challenged law is really, or merely ostensibly, a safety statute; or whether it is unreasonable, arbitrary or otherwise in violation of the Due-Process Clause of the XIV Amendment. It is likewise unnecessary to consider whether the law imposes financial burdens upon, or interferes physically with, interstate commerce. The mere fact of entry into a forbidden field, reserved to the federal power, where national regulation is indispensable if any is to be aftempted, is sufficient to invalidate the action

of the State, irrespective of the actual effects upon interstate commerce.

The regulation of the length and consist of interstate trains is clearly a subject upon which Congress may exercise its paramount authority, pursuant to the powers granted by the Commerce Clause. This premise has never been seriously disputed by appellee at any stare of this. case, and was conceded in the state court, by reason of appellee's citation of, and the state court's reliance upon, the Oklahoma Train-Limit Case, in which the premise is practically taken for granted (36 F. Supp., at pages 615-616). Appellee has strongly contended, of course, and the lower court in effect has concluded, that Congress has taken no such action; whereas we show, in subdivision 4 of this argument, that Congress has acted in such fashion as to enter and thus to occupy the field, through the passage of the Safety Appliance Act (45 U.S. Code, Sections 1, 9), and Section 25 of Part I of the Interstate Commerce Act (49 U.S. Code, Part I, Section 25). Our immediate argument, however, goes to the point that, even if it were held that Congress has not acted, the subjectmatter of train-length regulation is nevertheless exclusively national and not local in its nature, so that any character of state regulation is forbidden, whatever its apparent merit, or actual effect upon interstate commerce.

The principal objects of the Commerce Clause, as stated in numerous decisions of this Court, were to insure the national interest, as against conflicting and discriminatory state legislation regulating interstate commerce by providing for regulation of that commerce by a single authority in all fields and upon all subjects where national and uniform regulation is required, and thereby to guard against obstructions to the free flow of such commerce.

Brown v. Maryland (1827), 12 Wheat. 419, 6 L.ed.

Sooley v. Port Wardens (1851), 12 How. 299, 13 Led. 996;

Welton v. Missouri (1875), 91 U.S. 275, 23 L.ed.

Molle County v. Kimball (1880), 102 U.S. 691, 26

Cook v. Marshall County (1904), 196 U.S. 261, 49

Minnesota Rate Cases (1912), 230 U.S. 352, 57 L.ed. 1511:

Houston, E. & W. T. Ry. Co. v. United States (1914), 234 U.S. 342, 58 Leed. 1341

Port Richmond, etc., Ferry Co. v. Hudson Co. (1914), 234 U.S. 317, 58 Led. 1330;

National Labor Rel. Bd. v. Jones & Laughlin (1937), 301 U.S. 1 (36-38), 81 Led. 893 (911-912);

Parker v. Brown (1943), 317 U.S. 341 (363)/87 Led. 315 (332-333);

Union Brokerage Co. v./Jensen (1944), 322 U.S. 202, 88 L.ed., Adv., 888 (891).

In the Welton Case, this Court said (91 U.S., at page 280):

"The power to regulate it (commerce) embraces all the instruments by which such commerce may be conducted.... Where the subject to which the power applies is national in its character, or of such a nature. as to admit of uniformity of regulation, the power is exclusive of all State authority.

"It will not be denied that that portion of commerce... between the States which consists in the transportation and exchange of commodities is of national importance, and admits and requires uniformity of regulation. The very object of investing this power in the General Government was to insure this uniformity against discriminating State regulation."

In Cook v. Marshall County, supra, it was said (196 U.S., page 272):

"The power of Congress to regulate commerce among the States is perhaps the most benign gift of the Constitution. Indeed it may be said that without it the Constitution would not have been adopted.... The article was adopted ... to relieve them (the States) from the embarrassing restrictions imposed upon the internal commerce of the country."

The opinion in the Minnesota Rate Cases contains a careful and exhaustive analysis of the respective powers of the states and Congress over interstate commerce. In the course of that discussion, this Court emphasized the supremacy of the federal power, and the exclusive authority of Congress over those subjects which are of such nature as to demand that, if regulated at all, their regulation should be by a single national authority. The Court said in part (230 U.S., at pages 399-400):

"There is no room in our scheme of government for the assertion of state power in hostility to the authorized exercise of Federal power. The authority of Congress extends to every part of interstate commerce, and to every instrumentality or agency/by which it is carried on; and the full control by Congress of the subjects committed to its regulation is not to be denied or thwarted by the commingling of interstate and intrastate operations. This is not to say that the Nation may deal with the internal concerns of the State, as such, but that the execution by Congress of its constitutional power to regulate interstate commerce is not limited by the fact that intrastate transactions may have become so interwoven therewith that the effective government of the former incidentally controls the latter. This conclusion necessarily results from the supremacy of the national power within its appointed sphere. (Citing cases.)

"The grant in the Constitution of its own force, that is, without action by Congress, established the essential immunity of interstate commercial intercourse from the direct control of the states with respect to those subjects embraced within the grant which are of such a nature as to demand that, if regulated at all, their regulation should be prescribed by a single authority. It has repeatedly been declared by this court that as to those subjects which require a general system or uniformity of regulation, the power of Congress is exclusive. In other matters, admitting of diversity of treatment according to the special requirements of local conditions; the States may act within their respective jurisdictions until Congress sees fit to act; and, when Congress does act, the exercise of its authority overrides all conflicting state legislation. (Citing cases.)

"The principle which determines this classification underlies the doctrine that the States cannot under any guise impose direct burdens upon interstate commerce. For this is but to hold that the States are not permitted directly to regulate or restrain that which from its nature should be under the control of the one authority and be free from restriction save as it is governed in the manner that the national legislature constitutionally ordains." (Emphasis supplied.)

In

Wilmington Transportation Co. v. Railroad-Commission (1915), 236 U.S. 151, 59 L.ed, 508,

this Court said that the Commerce Clause

"denies authority to the states in all cases where the subject is of such a nature as to demand that, if regulated at all, its regulation should be through a general or national system, and that it should be free from restraint or direct burdens save as it is constitutionally governed by Congress."

In

Lemke v. Farmers Grain Co. (1922), 258 U.S. 50, 66 L.ed. 458,

this Court held the Grain Rating and Inspection Act of North Dakota to be void: not because it was unreasonable, but because it imposed direct burdens upon, and constituted an attempt to regulate, interstate commerce. In that case the defense raised by the state was that the statute was a proper police regulation; but the Court said (at page 58):

"It is contended that these regulations may stand upon the principles recognized in decisions of this court which permit the State to make local laws under its police power in the interest of the welfare of its people, which are valid although affecting interstate commerce, and may stand, at least until Congress takes possession of the field under its superior authority to regulate commerce among the States. This principle has no application where the State passes beyond the exercise of its legitimate authority and undertakes to regulate interstate commerce by imposing burdens upon it. This court stated the principle and its limitations in the discussion of the subject in the Minnesota Rate Case. (Citing cases.) (Emphasis supplied.)

The decision in ...

Oregon-Washington R. & N. Co. v. Washington (1926), 270 U.S. 87, 70 L.ed. 482,

national field" of regulation of interstate commerce, which the states may not enter at all, even in the absence of congressional action, and the "joint field" in which a state may exercise its police power, until and unless Congress has entered the field, and provided if does not directly and substantially regulate or obstruct interstate commerce; incidental or indirect effects only being permitted.

In that case, it appeared that Congress had conferred upon the Secretary of Agriculture the power to quarantine districts infected by dangerous plant diseases or insect infestations. He had failed to do so as to a certain injurious insect popularly called the alfalfa/weevil; and the State of Washington itself proclaimed such quarantine, thereby shutting out importations of alfalfa hay and alfalfa meal from certain other states. This Court held that the congressional act could not be construed as leaving the states

at liberty to establish such quarantines, even in the absence of action by the Secretary of Agriculture, saying (at page 101):

"In relation of the states to the regulation of interstate commerce by Congress there are two fields." There is one in which the State cannot interfere at all, even in the silence of Congress. In the other (and this is the one in which the legitimate exercise of the state's police power brings it into contact with interstate commerce so as to affect that commerce), the state may exercise its police power until Congress has by affirmative legislation occupied the field by regulating interstate commerce and so necessarily has excluded state action."

The Court in this connection stated further that the power of quarantine fell within the latter classification. In conclusion, the Court stated:

"It follows that pending the existing legislation of Congress as to quarantine of diseased trees and plants in interstate@ommerce, the statute of Washington on the subject cannot be given application. It is suggested that the states may act in the absence of any action by the Secretary of Agriculture: that it is left to him to allow the states to quarantine, and that if he does not act there is no invalidity in the state action. Such construction as that cannot be given to the Federal statute. The obligation to act with respect to the states is put directly upon the Secretary of Agriculture whenever quarantine, in his judgment, is necessary. When he does not act, it must be presumed that it is not necessary. With the Federal law in force, state action is illegal and unwarranted." (Emphasis supplied.)

In the Jones & Laughlin Case, supra (301 U.S. 1) this Court discussed the nature and extent of the Congressional power under the Commerce Clause, referring with approval to the Mobile County Case and the Houston E. & W. T. Ry. Co. Case, both of which we cite herein, and said in part (301 C.S., at pages 36-38):

"The fundamental principle is that the power to regulate commerce is the power to enact 'all appropriate legislation' for 'its protection and advancement' (The Daniel Ball, 10 Wall, 557, 564); to adopt measures 'to promote its growth and insure its safety's (Mobile County v. Kimball, 102 U.S. 691, 696, 697); 'to foster, protect, control and restrain.' Second Employers' Liability Cases, supra, page 47. See Texas & N. O. R. Co. v. Railway Clerks, supra. That power is plenary and may be exerted to protect interstate commerce 'no matter what the source of the dangers, which threaten it.' Second Employers' Liability Cases, page 51; Schechter Corp. v. United States, supra. Although activities may be intrastate in character when separately considered, if they have such a close and substantial relation to interstate commerce that their control is essential or appropriate to protects that commerce from burdens and obstructions, Congress cannot be denied the power to exercise that control.

"That intrastate activities, by reason of close and intimate relation to interstate commerce, may fall within federal control is demonstrated in the case of carriers who are engaged in both interstate and intrastate transportation. There federal control has been found essential to secure the freedom of interstate traffic from interference or unjust discrimination and to promote the efficiency of the interstate service

(citing cases). . . . Other illustrations are found in the broad requirements of the Safety Appliance Act and the Hours of Service Act. Southern Railway Co. v. United States, 222 U.S. 20; Baltimore & Ohio R. Co. v. Interstate Commerce Comm'n, 221 U.S. 612. It is said that this exercise of federal power has relation to the maintenance of adequate instrumentalities of interstate commerce. But the agency is not superior to the commerce which uses it. The protective power extends to the former because it exists as to the latter."

In

Milk Control Board v. Eisenberg Farm Products (1939), 306 U.S. 346, 83 L.ed. 752,

this Court again referred with approval to the portions of the opinion in the *Minnesota Rate Cases*, which we quote above, and said (at page 351):

"The grant of the power of regulation (of interstate commerce) to the Congress necessarily implies the subordination of the states to that power. This court has repeatedly declared that the grant established the immunity of interstate commerce from the control of the states respecting all those subjects embraced within the grant which are of such a nature as to demand that, if regulated at all, their regulation must be prescribed by a single authority."

To the same effect, see also:

Sunshine Anthracite Coal Co. v. Adkins (1940), 310 U.S. 381, 84 L.ed. 1263,

in which the Court (at page 394) referred to the congres-

sional power of regulation of interstate commerce as being "complete in itself," and paramount; and

Edwards v. California (1941), 314 U.S. 160 (174, 176), 86 L.ed. 119,

in which the Court quoted with approval the above excerpt from the Milk Control Board opinion.

The most recent pronouncement upon this topic is found in the opinion in:

United States v. South-Eastern Underwriters'
Assn., of al. (1944), 322 U.S., 88 L.ed., Adv.

in which this Court said (88 L.ed., Adv., pp. 1092-1094):

"The precise boundary between national and state power over commerce has never yet been, and doubtless never can be, delineated by a single abstract definition. The most widely accepted general description of that part of commerce which is subject to the federal power, is that given in 1824 by Chief Justice Marshall in Gibbons v. Ogden, 9 Wheat. 1, 189-190: 'Commerce, undoubtedly, is traffic, but it is something more: it is intercourse. It describes the commercial intercourse between nations, and parts of nations, in all its branches. Commerce is interstate, he said, when it concerns more States than . one'. Id., 194. No decision of this Court has ever questioned this as too comprehensive a description of the subject matter of the Commerce Clause. To accept a description less comprehensive, the Court has recognized, would deprive the Congress of that full power necessary to enable it to discharge its Constitutional duty to govern commerce among the states. .

"The power confided to Congress by the Commerce Clause is declared in The Federalist to be for the purpose of securing the 'maintenance of harmony' and proper intercourse among the States," purpose is not confined to empowering Congress with the negative authority to legislate against state regulations of commerce deemed inimical to the national Interest. The power granted Congress is a positive power. It is the power to legislate concerning transactions which, reaching across state boundaries, affect the people of more states than one; to govern affairs which the individual states, with their limited ferritorial jurisdictions, are not fully capable of governing. This federal power to determine the rules of intercourse across state lines was essential to weld a loose confederacy into a single, indivisible Nation; its continued existence is equally essential to the welfare of that Nation.

"Our basic responsibility in interpreting the Commerce Clause is make cortain that the power to govern intercourse among the states remains where the Constitution placed, it. That power, as held by this Court from the beginning, is vested in the Congress, available to be exercised for the national welfare as Congress shall deem necessary." (Emphasis supplied.)

So, in the case at bar, where this Court is confronted with a regulation imposed by a state, in a guise of a claimed exercise of the police power, the effect of which is to control and govern the conduct of commercial intercourse among the states and across state lines (i.e., not only within, but also far outside of the physical boundaries

of Arizona), it would seem to become this Court's "basic responsibility" to strike down that regulation, because it is an impairment and infringement upon the exclusive powers vested in Congress; for only by such action will this Court make certain that the power to regulate and govern the interstate commerce now subject to regulation by the Arizona statute shall remain where the Constitution placed it.

The power to regulate commerce is necessarily exclusive whenever the subjects of it are national in their character, or admit only of one uniform system, or plan of regulation.

Robbins v. Shelby County Taxing District (1887); 120 U.S. 489, 30 Led. 694;

Atlantic & Pac. Teleg. Co. v. Philadelphia (1903), 190 U.S. 160, 47 L.ed. 995;

Kelly v. Washington (1937), .02 U.S. 1 (9, 14-15), 82 Led. 3.

Inaction or silence by Congress is equivalent to a declaration that interstate commerce shall remain free and untrammeled.

Hall v. DeCuir (1877), 95 U.S. 485, 24 L.ed. 547; Weston v. Missouri, supra (91 U.S. 275, 23 J.ed. 374);

Pickard v. Pullman Southern Car Co. (1886), 117 U.S. 34, 29 L.ed. 785;

Morrill v. Wisconsin (1877), 154 U.S. 526, 23 Led.

Gloucester Ferry Co. v. Penuslyvania (1885); 114 U.S. 196, 29 L.ed. 158; Brown v. Houston (1885), 114 U.S. 622, 29 L.ed. 257;

Case of the State Freight Tax (1872), 15 Wall. 232, 21 L.ed. 146;

Covington & C. Bridge Co. v. Kentucky (1894), 154 U.S. 204, 38 L.ed. 962;

Philadelphia & S. Mail S. S. Co. v. Pennsylvania (1887), 122 U.S. 326, 30 L.ed. 1200;

Leisý v. Hardin (1890), 135 U.S. 100, 34 L.ed. 128; In re Rahrer (1891), 140 U.S. 545, 35 L.ed. 572; Brennan v. Titusville (1894), 153 U.S. 289, 38 L.ed. 719.

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Buck v. Kujkendall (1925), 267 U.S. 307, 69, L.ed. 623,

it was held that a statute of Washington, under which truck operators on the highways of that state engaged exclusively in interstate commerce were prohibited from operating, without first applying for and obtaining from the State Department of Public Works a certificate of public convenience and necessity, was invalid, as a regulation of interstate commerce. This Court said (at page 316):

"Thus, the provision of the Washington statute is a regulation, not of the use of its own highways, but of interstate commerce. Its effect upon such commerce is not merely to burden but to obstruct it. Such state action is forbidden by the Commerce Clause."

In

Bush v. Malloy (1925), 37 U.S. 317, 69 L.ed. 627, in which the facts resembled closely those presented in the Buck Case, this Court said (at pages 324-325):

"The state action in the Buck Case was held to be unconstitutional, not because the statute prescribed an arbitrary test for the granting of permits, or because the director of public works had exercised the power conferred arbitrarily or unreasonably, but because the statute, as construed and applied, invaded a field reserved by the Commerce Clause for Federal regulation."

It may be noted that, at the time these cases were decided, Congress had not undertaken to regulate the transportation of persons or property by motor carrier, over public highways, in interstate commerce; such regulation was not undertaken until the enactment on August 9, 1935, of the Motor Carrier Act, 1935 (49 U. S. Code, Chapter 8; Interstate Commerce Act, Part II, Sections 201-228). Nevertheless, this Court held that, despite congressional inaction, the states had invaded a field reserved by the Commerce Clause for federal regulation, and that their action was invalid.

Appellee has never seriously contended, at any stage of this case, that the "exclusive national field" of regulation does not exist nor does the state court in its opinion announce any such conclusion. In any event, the principle is thoroughly settled by the repeated decisions of this Court cited above; e.g., Minnesota Rate Cases, supra (230 U.S. 352, at pp. 399-400); Milk Control Board v. Eisen,

herg Farm Products, supra (306 U.S. 346, at p. 351); Kelly v. Washington, supra (302 U.S. 1, at pp. 9, 14-15). Rather, the position taken by appellee in its argument presented to the courts below, and in effect though not expressly sustained by the state Supreme Court, has been somewhat as follows:

- (a) Although there is an "exclusive national field" of regulation of interstate commerce, no invasion of that field takes place when a state undertakes to regulate in the interest of safety; because "safety is always in the joint field".
 - (b). In considering whether a shallenged state regulation infringes the exclusive national field, the Court therefore needs to determine only whether the regulation was enacted for the purpose of promoting safety and bears a reasonable relation to that purpose; the Court need not concern itself with the nature of the subject-matter regulated, or the effects of the regulation apart from its relation to its claimed purpose.
 - (c) If the state regulation is for the purpose of safety, and bears a reasonable relation thereto, its other effects upon interstate commerce are, in legal contemplation, never more than "incidental" and "indirect", no matter how great the actual burdens, obstructions or interferences may be in fact.
 - (d) The Court cannot inquire or determine whether a challenged police-power measure imposes an unduly severe burden upon interstate commerce, the only temedy in that event lying with Congress.

(e) The Court likewise cannot undertake to determine from the evidence whether the challenged law is actually a safety measure; the law must be sustained unless, upon the entire record, the Court can say that there is no possible rational basis for the safety claim.

This argument depends initially upon the assumption that the Arizona Legislature enacted the train-limit law for the purpose of promoting safety. While the state Supreme Court has subscribed to this assumption, and has even declared in its opinion that no reason other than safety "could possibly be assigned" to this law (R. 4059), neither the assumption, nor the declaration of the court adopting it, are founded upon or supported by any facts of record. No such declaration of purpose was made by the Arizona Legislature of 1912, and no reference whatever to safety appears in the text of the statute. The companion statutes, adopted at the same session of the Arizona Legislature, to which the state court refers to support its conclusion, are wholly irrelevant; they were separately enacted, and it cannot be assumed, simply because of enactment at the same session, that the same purpose or motive was present. In point of fact, these other statutes, like the train-limit law, are wholly lacking in any preamble or specific statement of burpose. and contain no references whatever to safety.

In the light of the facts as they existed in 1912, it is highly doubtful whether the legislature had any safety purpose in mind. The law when enacted did not actually modify contemporaneous operating practices (R. 1107)

1108; Exh/bits 140, 150, 182, 213); there had been no longtrain operations/in the state from which the legislature could have obtained any idea as to their safety compared to short-train operations. Therefore it is much more probable that the law was advocated and passed as a measure to entinue existing conditions, and particularly to promote and preserve the employment of railroad trainmen by directly regulating interstate commerce. Certainly that has been, and is, its most obvious practical (but extralegal) purpose and, as experience has shown, one of its principal results. The record before this Court demonstrates/that the law bears no relation in fact to safety; the. state wholly failed to prove the contrary, and, indeed, made no serious attempt to do so. We therefore submit that appellee's argument fails, at the outset, because it depends upon the assumption that a particular purpose may be ascribed to the challenged-law although the statement of that purpose does not appear of record and, in fact, was conspicuously omitted by the enacting legislature.

Apart from this basic defect, however, the state's position as above outlined is not supported by the controlling decisions of this Court. Those decisions, when read together, definitely lead to and sustain the following principles having immediate bearing upon the "national-field" phase of this case:

(a) There is a field of regulation of interstate commerce reserved exclusively to the national government, embracing all of those subjects which are of national and not merely local concern, as to which uniformity of regulation is essential if any be required. In this field state action is wholly forbidden, whether or not Congress has acted.

Minnesota Rate Cases, supra, 230 U.S. at p. 399; South Covington Ry. Co. v. Covington (1915), 235 U.S. 537, 59 L.ed. 350;

Kelly v. Washington, sugra, 302 U.S. at pp. 9, 14; Milk Control Board v. Eisenberg, supra, 306 U.S. at p. 351;

Edwards v. California, supra, 314 U.S. at p. 176.

(b) There is a second, so-called "joint" or "concurrent" field of regulation, embracing those matters of local nature and local concern, where in the absence of action by Congress, state regulation is permissible, even though interstate commerce is thereby affected to some degree; provided that the national interest is not impaired nor the free flow of interstate commerce obstructed.

Oregon-Washington R. & N. Co. v. Washington, supra, 270 U.S., at p. 101;

Minnesota Rate Cases, supra, 230 U.S., at p. 400; Milk Control Board v. Eisenberg, supra, 306 U.S., at p. 351;

California v. Thompson, supra, 313 U.S., at p. 116; Parker v. Brown, supra, 317 U.S., at pp. 362-363.

(c) In determining whether a challenged state regulation falls within the prohibited federal field or the permissible joint field, it is immaterial that the regulation may be for the purpose of safety or reasonably related to that purpose. The determination turns upon the nature

of the subject-matter regulated, and the incidence of the regulation upon interstate commerce, and not upon the claimed or stated purpose.

Minnesota Rate Cases, supra, 230 U.S., at p. 400; South Covington Ry. Co. v. Covington, supra (235 U.S. 537);

Scaboard Airline R. Co. v. Blackwell (1917), 244 U.S. 310, 315-316, 61 L.ed. 1160;

Kansas City Southern Ry. Co. v. Kan Valley Drainage District (1914), 233 U.S. 75, 78 (9) 58 Led. 857;

Davis v. Farmers Coop. Co. (1923), 262 U.S. 312, /315, 67 L.ed. 996;

Shafer v. Farmers Grain Co. (1925), 268 U.S. 189, 69 Leed. 909;

Parker v. Brown, supra, 317 U.S., at p. 363;

Union Brokerage Co. v. Jensen, supra, 322 U.S., at p. 210.

Appellee has heretofore particularly relied upon certain language found at page 402 of the opinion in the Minnesota Rate Cases, supra, to support its argument that the question whether a state law infringes the exclusive national field must be determined by reference solely to its purpose and its relation to that purpose, and not by consideration of the nature of the subject-matter regulated; the particular passage thus relied upon being as follows:

"But within these limitations there necessarily remains to the States, until Congress acts, a wide range for the permissible exercise of power appropriate to their territorial jurisdiction although interstate com-

merce may be affected. It extends to those matters of a local nature as to which it is impossible to derive from the constitutional grant an intention that they should go uncontrolled pending Federal intervention. Thus, there are certain subjects having the most obvious and direct relation to interstate commerce, which, nevertheless, with the acquiescence of Congress, have been controlled by state legislation from the foundation of the Government because of the necessity that they should not remain unregulated and that their regulation should be adapted to varying local exigencies; hence the absence of regulation by Congress in such matters has not imported that there should be no restriction but rather that the States should continue to supply the needed rules until Congress should decide to supersede them. Further, it is competent for a State to govern its internal commerce, to provide local improvements, to create and regulate local facilities, to adopt protective measures of a reasonable character in the interest of the health. safety, morals and welfare of its people, although interstate commerce may incidentally or indirectly be involved. Our system of government is a practical adjustment by which the National authority as conferred by the Constitution is maintained in its full scope without unnecessary loss of local efficiency. Where the subject is peculiarly one of local concern, and from its nature belongs to the class with which the State appropriately deals in making reasonable provision for local needs, it cannot be regarded asleft to the unrestrained will of individuals because Congress has not acted, although it may have such a relation to interstate commerce as to be within the reach of the Federal power. In such case, Congress must be the judge of the necessity of Federal action.

Its paramount a tority always enables it to intervene at its discretion • • • • ..." (Emphasis as in appellee's closing brief to the State Supreme Court.)

It will be apparent at once, we believe, that the quoted language does not sustain appellee's views. This Court was careful to point out that the power permitted to the states extends to "matters of a local nature"; and again, this Court said that "where the subject-matter is peculiarly one of local concern, and from its nature belongs to the class with which the state appropriately deals, etc.," it is subject to reasonable state action in the absence of action by Congress. This emphasis on "local concern" is heightened by the repeated use of the word "local," not less than eight times in this same paragraph (pp. 402-403 of the opinion).

The same concept has been treated as controlling throughout the later decisions of this Court, and finds its most recent expressions in California v. Thompson, and Parker v. Brown, supra. In the Thompson Case this Court referred (313 U.S., at p. 116) to the authority of the state, in the exercise of its police power, to regulate negotiations for interstate transportation "where they affect matters of local concern and do not infringe the national interest in maintaining the free flow of commerce and in preserving uniformity in the regulation of commerce in matters of national concern." In Parker v. Brown, supra, this Court said (317 U.S., at p. 362):

"When Congress has not exerted its power under the Commerce Clause and state regulation of matters

of local concern is so related to interstate commerce that it also operates as a regulation of that commerce, the reconciliation of the power thus granted with that reserved to the state is to be attained by the accommodation of the competing demands of the state and national interests involved." (Citing cases.) (Emphasis supplied.)

These authorities thus show that the state's power to regulate, no matter what the purpose of the regulation, extends only to matters of local concern; those matters which are of national concern are wholly beyond the scope of the state power. As was said in the Milk Control Board Case (306 U.S., at p. 351) and again in the Edwards Case (314 U.S., p. 176), quoting the substance of the earlier pronouncement in the Minnesota Rate Cases (230 U.S., p. 399):

"This Court has repeatedly declared that the grant (the Commerce Clause) established the immunity of interstate commerce from the control of the states respecting all those subjects embraced within the grant which are of such a nature as to demand, that if regulated at all, their regulation must be prescribed by a single authority."

There are not less than three cases, all decided since the Minnesota Rate Cases, and one of very recent date, in which this Court has held that state police-power laws or regulations, obviously in the interest of public safety and welfare, and apparently bearing some relation to that purpose, were invalid because in violation of the Commerce Clause: specifically, because either they invaded the exclusive national field, or in the guise of regulating a

local matter they directly interfered with and obstructed interstate commerce. In

Kansas City Southern Ry. Co. v. Kaw Valley Drainage Dist., supra (233 U.S. 75),

the railroad company had challenged the validity of certain orders requiring it to remove bridges which were part of its interstate railroad system. There had recently been disastrous floods in the streams crossed by these bridges, and a comprehensive flood and drainage program had been authorized by the state. The removal or substantial change in the location of these bridges would have greatly facilitated completion of the project. It was not seriously disputed that these orders were thus reasonably related to public health and safety. But this Court, without undertaking to review that issue, held the orders invalid because they were a direct invasion of an exclusive national field, in that they undertook to regulate a-subject-matter which by its very nature was subject only to federal control. This Court said (233. U.S., pp. 78-79): .

"They are out and out orders to remove bridges that are a necessary part of lines of commerce by rail among the States. But that subject-matter is under the exclusive control of Congress, and is not one that is left to the States until there shall be further action on its part. The freedom from interference on the part of the States is not confined to a simple prohibition of laws impairing it, but extends to interference by any ultimate organ.

The decisions also show that a State cannot avoid the operation of this rule by simply invoking the con-

has been said or implied that a direct interference with commerce among the States could not be justified in this way. The State can do nothing which will directly burden or impede the interstate traffic of the company, or impair the usefulness of its facilities for such traffic. (Citing cases.) (Emphasis ours.)

In

Seaboard Airling R. Co. R. Blackwell, supra (244) U.S. 310),

this Court held invalid a Georgia statute which required the engineer of every railroad train to sound the whistle at least 400 yards before arriving at each highway grade crossing, and at the same time to check and keep checking the speed of his train so as to be able to stop in time if the crossing were occupied by highway traffic. It was shown that interstate trains, if required to conform to this law, would be delayed several hours beyond their normal schedules. Although there was not, and could not be, any question but that the state regulation bore a reasonable relation to public health and safety, the Court did not consider that point; it found the regulation to be invalid because of the direct and intolerable burden imposed upon interstate commerce.

In

Edwards v. California, supra (314 U.S. 160),

this Court reviewed a California statute which prohibited the bringing or assisting into the state of any indigennon-resident, and held it invalid, in violation of the Commerce Clause, because if threetly regulated a subject matter which, if regulated at all, must be regulated only by Congress itself.

It might be argued, with considerable force, that a statute prohibiting the influx of indigent persons is directly and reasonably related to the public health and, welfare, because if operates to relieve local communities of the burden of care sometimes imposed by the presence of large numbers of persons without adequate means of support. Indeed, an argument somewhat to that effect was presented in support of the law before this Court But the Court did not attempt to decide whether the regulation was reasonable or bore a reasonable relation to its claimed purpose. After citing California v. Thompson, supra (313 U.S. 109), and referring to the principle that the states may regulate, under the police power; in matters of local concern even though interstate commerce is affected, the Court said (at pp. 173-174, 176):

"But this does not mean that there are no boundaries to the permissible area of State legislative activity. There are. And nane is more certain than the prohibition against attempts on the part of any single State to isolate itself from difficulties common to all of them by restraining the transportation of persons and property across its borders. It is frequently the case that a State might gain a momentary respite from the pressure of events by the simple expedient of shutting its gates to the outside world. But, in the worlds of Mr. Justice Cardozo: 'The Constitution was framed under the dominion of a political philosophy less parochial in range. It was framed upon the theory that the people of the several States

must sink or swim together, and that in the long run prosperity and salvation are in union and not division.' Baldwin v. Seelig. 294 U.S. 511, 523.

"It is difficult to conceive of a statute more squarely in conflict with this theory than the Section challenged here. Its express purpose and inevitable effect is to prohibit the transportation of indigent persons across the California border. The burden upon interstate commerce is intended and immediate; it is the plain and sole function of the statute. . . . We think this statute must fail under any known test of the validity of State interference with interstate commerce."

After further discussion, the Court continued with the quotation from the opinion in Milk Control Board v. Eisenberg Farm Products, supra, to which reference has already been made, as follows:

"This Court has repeatedly declared that the grant [the commerce clause] established the immunity of interstate commerce from the control of the States respecting all those subjects embraced within the grant which are of such a nature as to demand that; if regulated at all, their regulation must be prescribed by a single authority." Milk Control Board v. Eisenberg Farm Products, 306 U.S. 346, 351. We are of the opinion that the transportation of indigent persons from State to State clearly falls within this class of subjects." (Emphasis supplied.)

The application of this decision to the facts in the case at bar is plain and obvious. The train-limit law, like the california statute in the cited case, is plainly an attempt to regulate interstate commerce in the interest of some

local or, as the Court says, "parochial" purpose, and without regard to the results of the restraint upon the general conduct and movement of interstate commerce. The inevitable effect of the law is to regulate and obstruct the transportation of interstate commerce across the Arizona boundaries, and across the territory of both the state itself and the adjoining states. The burden upon interstate commerce is intended and immediate; it is the plain and obvious function and result of the statute. If the transportation of only one class of person (indigents) from state to state is a subject as to which national regulation alone may be had, then certainly it cannot be argued that the transportation of all kinds of persons and property in interstate commerce from state to state, and across several states, is not equally a subject for national regulation alone.

The essential question is therefore whether, upon the facts, and in the light of the controlling pronouncements, the challenged law is, on the one hand, a regulation of a subject matter of national concern, embraced within the exclusive national field; or is, on the other, a regulation of a matter of purely local concern, which may be appropriately regulated by the several states as long as they do not impair the national interest in preserving uniformity on national matters or obstruct the free flow of commerce, and thus permissible provided other conditions of validity are satisfied; that is, provided: (1) the burdens or interferences imposed upon commerce are not more than incidental or indirect; (2) the state has acted within its own proper territorial jurisdiction; (3) Congress itself has not acted in such fashion as to occupy the field; and (4) other

constitutional restrictions, e.g., the Due-Process Clause, are not disregarded.

It requires only brief consideration of the nature of the regulation accomplished by the Arizona law, and of the inevitable effects of the statute, to demonstrate that it constitutes a regulation of a subject matter which, if regulated at all, must be regulated by Congress. The following situation, which might arise if the doctrine were generally sustained that the several states may regulate the length of interstate trains will serve to illustrate the point. If Arizona may properly limit the length of interstate trains to 70 cars, equally New Mexico may limit their length to 65 cars, and California to 75 cars. Texas might enact a 60-car law. Oklahoma now has a 70-car law. If we assume that the general subject is properly within the power of the several states, then the number of cars which might be permitted certainly would vary in the different states. as the result of the varying judgments of the several state legislatures, or the effectiveness with which the advocates of train:limit legislation were able to press their views upon the legislators. With these varying limitations in effect, over the route of which appellant's lines across Arizona form an essential part, let us suppose that a Califormia shipper of frest fruits lesires to ship 90 cars from a point in Southern California, over the lines of appellant and its connection the Rock Island Railroad, to some point ix Kansas or beyond. With the 75-car limit in California. 15 cars of the total must be left behind, either to be handled in a following train, or deteriorate from the delay. The 75-car train can then proceed to a point west of the

Arizona boundary, such as Indio; or, if the present policy of the State of Arizona is continued, it may be moved into Yuma, even though thereby it actually crosses into Arizona with more than 70 cars. Because of the Arizona law, it must then be broken up, and five cars left behind to follow on some later train. At some point in Arizona near to but west of the New Mexico boundary line, five more cars would have to be left behind, with consequent delay. As the remaining cars approached the New Mexico-Texas boundary near El Paso, the process would have to be repeated. After re-entering New Mexico, the train could again be built up to 65 cars, and upon entering Oklahoma, to 70 cars, although not, in either case, with the cars that had been left behind; and if we suppose further that no train-limit law had been enacted in Kansas, the train, upon approaching that state, could either continue with the 70 cars, or could be held just inside of the Kansas boundary, until the cars which had previously been detached were brought forwa d and consolidated. .

A similar situation could, of course, exist on any other through route passing through several states: for example, the route of the Pennsylvania Railroad from Washington to New York City. This line extends for about 226 miles, through or across five different states and the District of Columbia. Assuming as in the first example that different train-length restrictions were imposed in each of these states, and that Congress had not acted in the field, through trains moving from one of these cities to the other would have to be made up and broken up not less than four times, or on the average once every 57 miles. The

only practical alternative would be to make up each train, at point of origin, in conformity with the shortest prescribed train length in any one of the five states. In either event, speedy and efficient movement of interstate railroad traffic over the through route would become virtually impossible.

These illustrations are not in the least fanciful or overdrawn; on the contrary, they are well within the bounds of possibility.

A second consideration, which shows that the subjectmatter of the Asisona law is one which must be regulated by the federal authority alone, is found in the admitted and inevitable extra-territorial effect of the limitation. The Arizona law, as a regulation of the length of interstate trains, is not restricted in effect to operations in Arizona. alone. The testimony in this case establishes, with a finality which appellee never attempted to challenge, that it is wholly impracticable to locate, outside of but precisely at the Arizona boundaries, the terminals required for the making up and breaking up of trains, in order to conform their lengths to the law's restrictions. Such trains have to be operated from and to the nearest terminals outside of Arizona, in units not exceeding 70 freight ears or 14 passenger cars (in which case the extra-territorial effects of the law extend as far as Indio, California, and Lordsburg, New Mexico, and in many cases as far east as El Paso; more than 170 miles outside of the state); or. such trains have to be stopped at some convenient points outside of Arizona, when approaching the state boundary. and there remade so as to conform to the law when enter-

ing the state, and again must be stopped when leaving the state, either at those points or at points further distant, in order to be made up in the longer units which the laws in the adjoining states permit. In practice, the extra-territorial effect is to some extent avoided at the westerly boundary, by operating trains across the boundary and into the yard at Yuma, on the Arizona side, where the operation of making up and breaking up the trains is performed. There is still, however, substantial extraterritorial effect in California in the case of passenger trains, because it is not always practicable to reconstitute such trains at Yuma and they must therefore be run from or to their originating or destination terminal, at Los Angeles (a distance of 250 miles outside of Arizona), in sizes to fit the Arizona law. At the easterly boundary. there is no terminal adjacent to the state line, and none can be there constructed, except at great expense; nor would it then be practicable for use. The result is that trains are operated in conformity with the law's restrictions as far east as Lordsburg, 23 miles from the state line, and in many cases as far east as El Paso, Texas, 171 miles. This extra-territorial effect is continuous and inevitable under the law, and, as we show elsewhere, is not only not challenged, but in effect conceded by appellee. (R. 1918).

In recognition of these possibilities, the Interstate Commerce Commission, in the opinion relative to Service Qrder No. 85 (256 I.C.C. 523, supra) voiced the expressions already quoted and here repeated for emphasis (256 I.C.C., pp. 530-531, 534):

"If State laws limiting the number of cars in trains are to be held valid (a question we do not decide), it would be possible for each State to set a different number of cars as the maximum to be hauled in a train. A State might even limit the length of trains to one car, although such a law would be clearly arbitrary and unreasonable. Higher limits might be set by States and found reasonable, but lack of uniformity would place a serious burden on interstate commerce.

"This language" is significant because train-limitlaws are not matters of local concern and the regulation of the number of cars which may be put in a train does infringe the national interest in maintaining the free flow of commerce under the present emergency war conditions."

We anticipate that appellee may argue that the failure of Congress to enact legislation relative to train lengths should be taken as expressing the congressional view that the subject matter is appropriate for state regulation, and so not exclusively national in character; and in this connection it may also contend that any relief from the state restrictions must be sought from Congress and not by court action. This argument is completely disposed of by those decisions of this Court, already cited, which establish that when the subject matter is of such nature as to demand uniformity of regulation by a single authority, silence or inaction by Congress is equivalent to

[&]quot;The "language" referred to appears in the next to the concluding paragraph on page 116 of this Court's opinion in California v. Thompson, supra (313 U.S. 109), which paragraph was quoted in full by the Commission.

a declaration that interstate commerce shall be free and untrammeled. Compare:

Welton v. Missouri, supra, 91 U.S. 275, 282; Missouri v. Kansas Natural Gas Co. (1924), 265 U.S. 298, 310, 68 L.ed. 1027.

As this Court indicated in the Minnesota Rate Cases, supra (230 U.S., at pp. 402-403), it is only when the "subject is peculiarly one of local concern" that inaction by Congress leaves the field open to the state to make reasonable provision for local needs.

Furthermore, the argument that relief against regulation of a subject matter of national concern must be sought from Congress alone loses sight of realities. If the subject matter is of national concern but not heretofore regulated by Congress, and there has been no disposition on the part of Congress to enact such regulation, then, it may be asked, just how would one interested in setting aside a state regulation present the matter to Congress? Could he ask for the passage of a resolution affirmatively declaring that no regulation is necessary? Or should he ask Congress to adopt some affirmative regulation (though believing that none is needed) simply to make certain that the state regulation is set aside?

Although congressional regulation has extended to a great many phases of the construction and operation of interstate railroads, there has never been, so far as we can discover, any federal law or regulation prescribing the width (gauge) of the tracks. The present standard, which by common acceptance prevails throughout the nation and in adjacent foreign countries, is four feet eight and

one-half inches. Suppose that a state should now pass a law, expressly stated to be in the interest of greater safety, prohibiting the operation of any railroad within its boundaries not having a gauge of at least six feet. It can be argued, with at least as much plausibility as in the case of a train-limit law, that a regulation imposing this wider gauge is in the interest of safety, and bears a reasonable relation to that purpose. If the theory of the "national field", heretofore advanced by appellee and impliedly sustained by the state court is correct, the regulation would fall within the "joint field", and (assuming apparent reasonableness) this Court could not interfere; the only remedy would be by petition to Congress. Of course, the interruption and obstruction to interstate commerce resulting from such a law would be so immediate, obvious, and complete as to leave no judicial doubt of the necessity of uniform regulation; if any were required; and we cannot believe that any court would hesitate to hold the law wholly invalid under the Commerce Clause.

A regulation of the width of the track and thus of the trains is no different in principle, and not greatly different in its effects upon interstate commerce, from a law which limits the length of trains. For each of these two regulations a specious claim of greater safety can probably be made. Each unquestionably would, and in the case of the train-limit law demonstrably does, interfere with the proper conduct of interstate commerce, imposing direct and substantial obstructions to its free movement. A regulation of gauge would of course actually prevent the through movement of cars, and compel physical

transfer of freight and passengers at or before reaching the state boundaries; the regulation of train length, however, delays and at times prevents the movement of cars, because it requires them to be detached from trains in which they are being handled and could continue to be handled, and held at points adjacent to or outside of state boundaries until trains can be made up in lengths conforming to the restriction, so that the cars can proceed. In the case of passenger traffic, the restriction of train length may, and upon occasion does, require the actual transfer of passengers from one car to another, and thus is practically equivalent, from the standpoint of delay and inconvenience, to a compulsory change of gauge.

The precise question whether the subject matter of the length and consist of interstate railroad trains falls within the exclusive national field of regulation has never been presented to this Court in such form as to result in a direct ruling. There are, however, not less than three decisions of this Court which, although not relating directly to the subject of train lengths, do relate to subject so closely similar that no distinction in principle can be observed, and thus hold, at least indirectly, that the subject matter is one requiring a national or uniform system of regulation, and hence within the exclusive national field; viz.:

Hall v. DeCuir, supra (95 U.S. 485):

South Covington Ry. Co. v. Cavington, supra (235) U.S. 537);

Kelly v. Washington, supra (302 U. S. 1).

The DeCuir Case arose out of a Louisiana law requiring equal rights and privileges without discrimination as to

race and color. Mrs. DeCuir, a negress, sought accommodations on a boat plying between Louisiana and Mississippi and demanded them in the cabin specially set apart for white persons. Her demand was refused. She such for damages under the state act, and the defense was that the statute was void because an attempt to regulate commerce among the states. This Court, in denying her claim, said (95 U.S., at pp. 488-490):

But we think it may safely be said that state legislation which seeks to impose a direct burden upon interstate commerce or to interfere directly with its freedom, does encroach upon the exclusive power of Congress. The statute now under consideration, in our opinion, occupies that position. It does not act upon the business through the local instruments to be employed after coming within the state, but directly upon the business at it comes into the state from without or goes out from within. While it purports only to control the carrier when engaged within the state it must necessarily influence his conduct to some extent in the management of the business throughout his entire voyage.

"It was to meet just such a case that the commercial clause in the Constitution was adopted. The river Mississippi passes through or along the borders of ten different states, and its tributaries reach many more. The commerce upon these waters is immense, and its regulation clearly a matter of national concern. If each state was at liberty to regulate the conduct of carriers while within its jurisdiction, the confusion likely to follow could not but be productive of great inconvenience and unnecessary hardship. Each state could provide for its own passengers and

regulate the transportation of its own freight, regardless of the interests of others. Nay more, it could prescribe rules by which the carrier must be governed within the state in respect to passengers and property brought from without. On one side of the river or its tributaries he might be required to observe one set of rules, and on the other another. Commerce cannot flourish in the midst of such embarrassments.

"As was said by Mr. Justice Field, speaking for the court in Welton v. The State of Missouri, 91 U.S. 282, 'inaction (by Congress)' . . . is equivalent to a declaration that interstate commerce shall remain free and untransmeled'. Applying that a neigle to the circumstances of this case, congressional inaction left Benson at liberty to adopt such reasonable rules and regulations for the disposition of passengers upon his boat, while pursuing her voyage within Louisiana or without, as seemed to him most for the interest of all concerned. The statute under which this suit is brought, as construed by the state court, seeks to take away from him that power so long as he is within Louisiana; and while recognizing to the fullest extent the principle which sustains a statute. unless its unconstitutionality is clearly established. we think this statute, to the extent that it requires those engaged in the transportation of passengers among the states to carry colored passenger in Louisiana in the same cabin with whites, is unconstitutional and void, If the public good requires such legislation, it must come from Congress and not from . the States." (Emphasis ours.)

Although the DeCair Case was decided in 1877, it has frequently been cited and followed by this Court, and is

unquestionably still regarded as a correct statement of principle. Thus, it was one of the leading cases referred to in the opinion in the Minnesota Rate Cases, supra (230 U.S., at p. 401), and was likewise cited in South Carolina Highway Dept. v. Barnwell Bros. (1938), 303 U.S. 177, 185, 82 L. ed. 734.

In South Covington R. Co. v. Covington, supra (235 U.S. 537), it was held that the City of Covington, Kentucky, could not regulate the interstate business of a street railway company transporting passengers from that city to Cincinnati, Ohio, by restricting the number of passengers which the company might admit to its ears, and requiring it to operate sufficient cars to accommodate the public within such restriction. The Court said (235 U.S., at pages 547-548):

"To comply with these regulations, the testimony shows, would require about one-half more than the present number of cars operated by the Company, and more cars than can be operated in Cincinnati within the present franchise rights and privileges, held by the Company, or controlled by it, in that City. Whether, in view of this situation, this regulation would be so unreasonable as to be void, we need not now inquire. These facts, together with the other details of operation of the cars of this Company, are to be taken into view in determining the nature of the regulations here attempted, and whether it so directly burdens interstate commerce as to be beyond the power of the State. We think the necessary effect of these regulations is not only to determine the manner of carrying passengers in Covington and the number of cars that are to be run in connection with the business there, but necessarily directs the number of cars to be run in Cincinnati, and the manner of loading them when there, where the traffic is much impeded and other lines of street railway and many hindrances have to be taken into consideration in regulating the traffic. If Covington can regulate these matters, certainly Cincinnati can, and interstate business might be impeded by conflicting and varying regulations in this respect, with which it might be impossible to comply. On one side of the river one set of regulations might be enforced, and on the other side quite a different set, and both seeking to control a practically continuous movement of cars. As was said in Hall v. DeCuir, 95 U.S. 485, 489, 'commerce cannot flourish in the midst of such embarrassments.'

"We need not stop to consider whether Congress has undertaken to regulate such interstate transportation as this, for it is clearly within its power to do so, and absence of Federal regulation does not give the power to the State to make rules with so necessarily control the conduct of interstation commerce as do those just considered." (Emphasis oplied.)

Like Hall v. DeCuir, supra, the South Covington Case has also been cited frequently by this Court. Moreover, it has not been overruled in the so-called Second South Covington Case (South Covington etc. R. Co. v. Kentucky (1920), 252 U.S. 399, 64 Led. 631), as appelled has at times suggested. Reference to the majority opinion in the latter case (252 U.S., at pp. 403, 404) will reveal that the Court drew a very substantial distinction between the Kentucky statute, which it sustained in the Second South Covington Case, and the city ordinance which it invalidated in the First Case. In the Second Case,

the Court held that there was a distinct operation in Kentucky, authorized and required by the charter of the companies, and that the state act in question regulated that operation and not more, and therefore was not a regulation of interstate commerce. It also said, after citing the First Case, that the state act affected interstate business incidentaly, and did not subject it to unreasonable demands.

Referring further to the First Case, the Court said (p. 404):

"The cited case expresses the principle of decision and marks the limitation upon the power of a state, and when its legislation is or is not an interference with interstate commerce."

In any event the First South Covington Case has apparently not been regarded by this Court as without authoritative force. If has been cited with approval in other decisions both before and since the Second Case. Prior thereto, it was cited in:

Western Oil Refining Co. v. Lipscomb (1917), 244 U.S. 346 (349), 61 Leed. 1181 (1184);

M. K. J. T. Ry. Co. v. Texas (1918), 245 U.S. 484 (489), 62 L.ed. 419 (422); and

Denver & Rio Grande R. R. Co. v. Denver (1919). 250 U.S. 241 (246), 63 L.ed. 958 (962).

In the Denver Case it was referred to in support of the proposition that a city ordinance requiring the removal of a spur track from a street intersection was not invalid, in violation of the Commerce Clause, for the following reason as stated by the Court (p. 246):

"The ordinance makes no discrimination against interstate commerce, will not impede its movement in regular course, and will affect it only incidentally and indirectly." (Emphasis ours.)

Subsequent to the Second Case, the First Case was cited with approval in the unanimous opinion of the Court in

Hartford Accident, etc., Co. v. Illinois (1936), 298 U.S. 155 (158), 80 L.ed. 1099 (1102),

where it was coupled with the Minnesota Rate Cases.

The most recent citation of the First South Covington Case is at the conclusion of this Court's opinion in Terminal Railroad Assn. v. Brotherhood—(1943), 318 U.S. 1, 9, 87. Led. 571, where the results of the South Covington decision were briefly summarized, and it was pointed out that the challenged ordinance was struck down "because of the likelihood that serious burdens would be imposed upon interstate commerce by virtue of the impossibility of compliance with probable conflicting regulations."

The Kelly Case (Kelly v. Washington, 302 U.S. 1) arose out of an attempt by the State of Washington to enforce a code of regulations applying to motor-driven tugs; it appearing that Congress, though it had enacted a rather complete code of regulation for steam vessels, as well as for motor-driven vessels of certain sizes, had restricted the scope of the regulations applying to the latter so as to exclude all but a very few of the tugs involved in this case. An initial question in the case was therefore whether Congress, by means of the federal acts, had occupied the field of regulation in such fashion as to exclude the state;

there was also the further question whether the state law must fall in its entirety, on the theory that the subject matter was one as to which uniformity of regulation was required, so that no state action whatever could be undertaken.

As to the argument that Congress had occupied the field, the Court said (302 U.S., at page 9):

"The argument is also unnecessary and inapposite if the subject is one demanding uniformity of regulation so that state action is altogether inadmissible in the absence of federal action. In that class of cases the Constitution itself occupies the field even if there is no federal legislation." (Emphasis supplied.)

. The Court said further (at pages 14-15):

"The remaining question is whether the state-law must fall in its entirety, not because of inconsistency with federal action, but because the subject is one as to which uniformity of regulation is required and hence, whether or not Congress has acted, the State is without authority. Cooley v. Board of Wardens, 12 How. 299, 319; Minnesota Rate Cases, 230 U.S. 352, 399, 400.

"The state law is a comprehensive code. While it excepts vessels which are subject to inspection under the laws of the United States, it has provisions which may be deemed to fall within the class of regulations which Congress alone can provide. For example, Congress may establish standards and designs for the structure and equipment of vessels, and may prescribe rules for their operation, which could not properly be left to the diverse action of the States. The State of

Washington might prescribe standards, designs, equipment and rules of one sort, Oregon another, Califorma another, and so on." (Emphasis supplied.)

The Court then concluded that the state might, for the protection of its people, provide for the inspection of vessels which were actually unsafe and unseaworthy, and that such inspection, for the purpose of insuring those objects, constituted a subject matter as to which uniformity of regulation in all aspects was not required; but the Court continued (at page 15):

tempts to impose particular standards as to structure, design, equipment and operation which in the judgment of its authorities may be desirable but pass beyond what is plainly essential to safety and seaworthiness, the State will encounter the principle that such requirements, if imposed at all, must be through the action of Congress which can establish a uniform rule." (Emphasis supplied.)

The quoted language applies with peculiar force to the instant case. Clearly the train-limit law is no mere provision for the inspection of trains or cars, to insure the detection of those which are defective, and thus unsafe to be handled. On the contrary, it is a positive and inelastic state-made "rule and standard" for the operation of appellant's interstate trains; indeed, it is hard to conceive of any rule which a state might prescribe more directly controlling and regulating such operations. It is just such a rule as might (to borrow the Court's illustration) be of "one sort" in Arizona, another in California, still another in New Mexico, "and so on". It

therefore falls squarely within the condemnation expressed in the portion of the opinion last quoted: i.e., it passes "beyond what is plainly essential to safety", and "encounters the principle that such requirements, if imposed at all, must be through the action of Congress which can establish a uniform rule" if one be required.

The question whether the regulation of train lengths falls within the exclusive national field was directly presented in each of the series of train-limit cases in the United States District Courts, to which we have already referred. In both the First Arizona and the Nevada Cases the courts held that the subject matter is such as to demand uniform regulation, and thus within the exclusive national field. In the Oklahoma Case, on the other hand, the majority held that the subject matter lies within the so-called "joint" field; and is properly subject to regulation by the state, unless and until the National Government acts, and always provided, of course, that the burden imposed upon interstate commerce is no more than incidental or indirect.

The three-judge court which rendered the opinion in the First Arizona Train-Limit Case appears to have regarded the DeCuir and First South Covington Cases as practically determinative, the cases were cited and relied upon in that part of its opinion relating to the point now under discussion. Specifically, it was said, in the Arizona Case (2 F.Supp., at page 859):

"Clearly, the Constitution has conferred upon Congress full and exclusive power to regulate commerce between the states, and any attempted enforcement of the statute of a state, passed under the guise of the police power, which directly affects interstate com-

merce to such an extent as to amount to a regulation thereof, is void and will be enjoined. (Hall v. DeCuir, 95 U.S. 485, and other cases.)

"If it should be determined that the various states have power to regulate interstate train lengths, then each state might prescribe a different limitation. A transcontinental shipment originating in California and destined for the Atlantic scaboard would require the carrier to break up and rearrange its trains before it could enter the boundaries of each state to comply with these varying limitations. This would involve an unreasonable delay in the handling of interstate traffic and impose an unreasonable burden on the same. The evidence shows that attempts have been made in the states of Indiana, Illinois, Wiscon-, sin, California, Colorado and others to pass statutes, the effect of which are to limit the number of cars in trains. Indiana proposed a 70-car limit; Illinois a half mile limit; Wisconsin a 3,300 ft. limit; California various limits based on grades-of a half mile or more, and different limits on different grades; Colorado a 65-car limit on certain grades and on grades of not less than one per cent, a 55-car limit.

The present practice of the plaintiffs in its observance of the Arizona Law is illustrative of the extent of interference and the burden that would be imposed upon commerce if different regulations should be prescribed in different states. At the present time east-bound freight trains leave points in California consisting of from eighty to one hundred cars or more. These trains are hauled to division points west of the boundary of Arizona. They are there broken up into shorter trains of seventy cars or less to comply with the Arizona law. Additional train and en-

gine crews are provided, the short trains are then hauled through the state to a division point east of the state boundary, where they are again coupled up into long trains which continue on their transcontinental journeys. The same practice prevails as to west bound transcontinental traffic."

The court then quoted a portion of the language from the opinions in the *DeCuir* and *Covington Cases*, and continued:

"We are convinced that the subject of the length of trains engaged in interstate traffic is national in its character, requiring uniformity of regulation, and that the power to so regulate is exclusively conferred upon Congress by the Commerce Clause of the Constitution." (Emphasis supplied.)

The Mid-Train Caboose Case:

(Southern Pac. Co. v. Bailroad Commission (1935), 10 F.Supp. 9,18).

We have heretofore called attention to the close resemblance, particularly in legal aspect, between the instant case and the California Mid-Train Caboose Case. In that case the court cited and relied upon many of the authorities referred to in this brief; and this was particularly true of its review of the point, there presented by this appellant (as plaintiff) in substantially the same manner as in the instant case, that the order challenged as invalid constituted an invasion by the State, under the "convenient apologetics of the police power," of a field of regulation where Congress possesses exclusive power and the State may not enter even in the absence of Congressional

action. The court said, in part (10 F. Supp., at, page 920):

"That the Commerce Clause of the Constitution has conferred upon Congress full power to regulate interstate commerce is all but elementary, and any attempt by a state to interfere with such exclusive regulation has been held unconstitutional and void."

The court then cited certain of the decisions referred to herein; and queted from the opinions in the Minnesota Rate Cases and the K. C. S. Ry. Co. Case; also citing Hall v. DeCuir, surpra, to the point (page 922):

"It is equally well settled that a state may not under the guise of the police power directly interfere with interstate commerce."

The court also said (at page 922):

"If the order bears a reasonable relationship to public health and safety, and does not transgress the constitutional protection of interstate commerce, the power of the state to make it cannot be questioned."

We emphasize the twofold condition which, the court declared, must be satisfied if a purported police-power order is not to be set aside. The sentence last quoted might, with equal propriety and fidelity to controlling principles announced by this Court, have been phrased as follows:

"Even if the order bears a reasonable relationship to health and safety, but also transgresses the constitutional protection of interstate commerce, the power of the state to make it cannot be sustained." Such was indeed precisely the holding of the court in the case. After a lengthy discussion (pages 923-924) of the evidence bearing upon the reasonableness of the order as a health and safety measure, the court said (page 924).

"The issue relative to the order as an attempted regulation in the interests of health and safety is not free from doubt, but we think that what was said by the Supreme Court in Hall v. DeCuir, 95 U.S. 485, 24 L.ed. 547, is applicable to the issue." (Emphasis supplied.)

The court then quoted at length from the opinion in Hall v. DeCuir, including particularly in its quotation the following language from that opinion (95 U.S., at page 488):

"We think it may safely be said that State legislation which seeks to impose a direct burden upon. interstate commerce or to interfere directly with its freedom, does encroach upon the exclusive power of Congress. The statute now under consideration, in our opinion occupies that position. It does not act upon the Jusiness through the local instruments to be employed after coming within the State, but directly upon the business as it comes into the State from without or goes out from within. While it purports only to control the carrier when engaged within the State, it must necessarily influence his conduct to extent in the management of his business. through his entire voyage. Uniformity in the regulations by which he is to be governed from one end to the other of his route is a necessity in his business. and to secure it Congress, which is untrammeled by State lines, has been invested with the exclusive legislative power of determining what such regulations shall be."

· To support its view, the court cited also the First South Covington Case, supra, among others.

We emphasize again that the question whether the statute under attack was reasonable as a police-power regulation was not the essential point decided in Hall v. Detuir: the essence of that decision was that a state regulation, even though it might be reasonable, could not stand if in purpose and effect it directly regulated a subject matter within the exclusive national field. Such was precisely the position taken by the court in the Mid-Train Caboose Case: it recognized that Hall v. DeCuir was and is controlling, even though the reasonableness of the order, as a police-power regulation, was "not free from doubt."

Interstate Commerce Commission Service Order No. 85.

In earlier passages of this brief, we have called attention to Service Order No. 85, issued by the Interstate Commerce Commission effective September 15, 1942, which order requires all interstate rail carriers subject to the Interstate Commerce Act to operate their trains during the present emergency without regard to state train-limit laws, when necessary to avoid congestion or move traffic promptly; the order being predicated upon recitals of fact by the Commission that such train-limit laws may result in congestion, wasteful use of locomotives, and interference with the free flow of traffic, and that "long" trains may be operated in accordance with existing safety standards.

Considered superficially, it might seem that the greater significance of this order in the instant case is in relations with rithe "safety" or the "interference" issues. While

undoubtedly the order is of great pertinency in those respects, we think it also has direct bearing upon the point now under discussion: the "exclusive national field" issue.

The order is addressed to an emergency, presently declared to exist, and by its terms will continue effective only for the duration of that emergency; but it is not based upon an emergency statute. The provisions found in paragraphs 10 to 17 of Section 1 of the Interstate Commerce Act, under authority of which the order by its terms was issued, were enacted in 1917, and expanded in 1920 41 Stat. L. 476) and have been continued in effect, with amendments not material to this discussion, up to the present time. Congress thus recognized many years ago that the power exists, under the Commerce Clause, to prevent interferences with and delays to the free flow of interstate commerce moving in the cars and trains of railroad carriers: recognized, further, the necessity for efficient and economical use of motive power and other equipment; and thereupon delegated to its own agency, the Interstate Commerce Commission, the exercise of that power; just as for other purposes, it has delegated to the Commission its constitutional power to regulate the rates and charges. and various other aspects of the operations and activities of such carriers. To be sure, the power is now exercised. because of the necessities arising from the emergency. But the emerge cy does not create the power; it has simply called for its exercise; because the Commission has recognized that the interferences, burdens and delays imposed by the Train-Limit Law, though serious in time of peace. have in time of war become much more acute, and there-· fore an intolerable impediment and hazard, not merely to

the free flow of the commerce of the nation, but to the national welfare, and, indeed, the national existence. The emergency, has simply accentuated and brought into sharper relief that the power to abate these interferences exists, and must and should be exercised. But the power itself, by virtue of which the carriers are required to disregard the state restrictions, rests today, as it did in 1917 when the statutory provisions were passed, and as it has, indeed, ever since 1789, when the Federal Government under our Constitution first commenced to function, upon the grant of power expressed in the Commerce Clause, and the essential immunity from state regulation thereby conferred upon those aspects of interstate commerce as to which a uniform national system of regulation must prevail if any be required.

The order is therefore, beyond any question, an exercise of power by Congress through its delegated agency which, even if the field of train-limit regulation were joint or concurrent, would oust completely the conflicting state enactment. But the order is much more: it is a definite expression of the exclusive federal power; a recognition, by mandatory direction, of the paramount federal interest in the employment by the railroads constituting the national transportation system of those operating methods which are notoriously known and, by this record, convincingly shown to result in the speediest, safest, and most efficient transportation, and in the elimination of the artificial, state-imposed handicaps which create and augment waste, delay, and hazard.

It may be suggested, on behalf of appellee, that as a result of this order the instant case has become moot, or

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that the penalties demanded by the complaint have been suspended. Such is not the fact. The alleged violations occurred in March and April, 1940, long before the issuance of the order. If the statute is valid, appellant is liable for those penalties; but if it is invalid, there is no liability. As already emphasized, the instant case is a prosecution of the character contemplated by Section 28-401 of the Arizona Annotated Code, 1939 (Laws of 1931, Chapter 84), and was brought for the express purpose of enabling the validity of the challenged statute to be tested.

Furthermore, since the order by its terms suspends the train-limit restrictions for the period of the emergency only, it does not afford the same permanent character of relief which would follow from a final decision holding the law invalid. Because of the temporary character of the order and the uncertainty as to when it will expire by its terms, appellant cannot undertake the permanent investments in siding extensions, roundhouse and shop facilities and other improvements which, as the record shows, will. be necessary to enable it to conduct a standard longtrain operation in Arizona in the same manner and to the same extent as elsewhere upon its system. These investments would be warranted only if appellant were reasonably assured that the restrictions, are permanently removed. The temporary relief granted by the order of course enables appellant to achieve much greater economy. efficiency, and safety in its Arizona operations, and to avoid the wasteful congestion, interference and delay inherent in restricted operations; but the long-train operations are still limited just as they were during the month of April, 1940, by the fact that the fixed plant and

equipment in Arizona is not at present adapted to long-train operation. For example, just as in 1940, and because the passing tracks and sidings in Arizona do not generally accommodate trains of more than 70 freight cars, it is not presently practicable to operate long trains in both directions at the same time.

Irrespective of the order, therefore, it is essential that the instant case be fully and finally decided by this Court, so that the present uncertainty may be ended, and appellant may know whether it will be warranted in undertaking the extensive improvements required to enable its Arizona properties to be operated efficiently, safely and economically, and in accordance with the standard practice prevailing elsewhere in the United States:

The Court will note that in the preamble to its order the Commission has declared that long trains may be operated "in-accordance with safety standards now applicable." The present safety standards, are the same as those existing in 1940 and 1941, when the instant case was tried; there have been no amendments to existing state or federal safety statutes applicable to the operation of railroad trains in Arizona, nor any new enactments. The order should, therefore, be given great weight, as an expression of view by an expert tribunal "created by law and informed by experience" (Illinois Central R. Co. v. Commission (1907); 206 U.S. 441, 454; 51 Led. 1128), on the question whether long-train operation is safe, practicable, and efficient in those states (Arizona and Oklahoma), where train-limit laws now exist. However, the order is more than a mere expression of such views; it is an outright

recognition of the correctness of the trial court's finding and conclusion that the permissible number of cars in an interstate train is a subject of exclusive national concern, as to which the states have no power of regulation, even in those cases where Congress has not seen fit to act, either directly or by its delegated agency.

Beview of Certain Cases Heretofore Relied Upon by Appellee.

In its discussions of the "national field" issue in the lower courts, appellee has largely relied upon certain decisions of this Court which we shall here review in some detail.

The Georgia Electric Headlight,

New York Car Heating, and

Alabama Engineer Cases:

(Atlantic Coast. Line R. Co. v. Georgia (1914), 234 U.S. 280, 58 L.ed. 1312;

(New. York, N. H. & H. Ry. Co. v. New York (1897), 165 U.S. 628, 41 L.ed. 853;

(Smith v. Alabama (1888), 124 U.S. 465, 31 L.ed. 508.)

The Georgia Headlight Case involved the validity of a statute of Georgia requiring the use of electric headlights on locomotives using main lines. After a trial the railroad company was convicted of violating the law; and the judgment of the Supreme Court of the state was reviewed by writ of error.

Speaking through Mr. Justice Hughes, this Court held that the argument that other contiguous states might prescribe an oil or aretylene headlight and that "if state requirements conflict, it will be necessary to carry addi-

tional apparatus and make various adjustments at state lines, which would delay and inconvenience interstate traffie? was disposed of by the New York Car-Heating Case, supra; and that the suggestion was only one of "possible inconvenience": a far different situation than the picture here presented of direct, daily and substantial interference with, and obstruction to, the free movement of trains and cars engaged in a large and continuous movement in interstate commerce.

This Court held that the case was one in which, "in the absence of legislation by Congress," the states might secure "needed local protection" until Congress acted, provided that the "legislation must not be arbitrary, or pass beyond the limits of a jair judgment as to what the exigency demands."

In the New York Car-Heating Case, it was said (165 U.S., page 632):

"The statute in question is not directed against interstate commerce. Nor it is within the meaning of the Constitution, a regulation of commerce, although it controls, in some degree, the conduct of those engaged in such commerce."

In answer to the carrier's argument that conflict between the state regulations in respect to heating of passenger cars used in interstate commerce might require passengers to leave cars at state lines, and get into other cars heated in a different mode required by the law of the state they were about to enter, the Court said that "these possible inconveniences" could not affect the state's police power, and also again characterized the possible effect of the act as merely an "inconvenience." That statute was of quite a different sort from the Train-Limit Law; it did not require cars concededly fit for the transportation of passengers or freight, moving therein in a continuous movement in interstate commerce, to be detached at the state line to remain there or be sent forward on another train. The Arizona statute does so. Nor did it, as does the Arizona law, require, outside as well as inside the borders of the state, expensive and unnecessary operations by limiting the length of trains engaged in continuous movement in interstate commerce.

Smith v. Alabama, supra (124 U.S. 465, 31 Led. 508). was also cited in the Georgia Headlight Case (234 U.S., p. 291) to the point that state rules prescribed for railroad aconstruction and for their management and operation, designed to protect persons and property otherwise endangered by their use, are strictly within the limits of the local law. They are not per se regulations of commerce; it is only when they operate as such in the circumstances of their application, and conflict with the expressed or presumed will of Congress exerted on the same subject that they can be required to give way to the supreme authority of the Constitution." That case upheld an Alabama statute requiring locomotive engineers in that state to be examined and licensed. Upholding the statute, and following a long discussion which does not at all bear on the question of entry into a national field, it was concluded by the Court (124 U.S. at page 482, italics ours):

"In conclusion, we find, therefore, first, that the statute of Alabama, the validity of which is under

consideration, is not, considered in its own nature, a regulation of interstate commerce, even when applied as in the case under consideration; secondly, that it is properly an act of legislation within the scope ofthe admitted power reserved to the State to regulate the relative rights and duties of persons being and acting within its territorial jurisdiction, intended to operate so as to secure for the public, safety of person and property; and, thirdly, that so far as it affects transactions of commerce among the States, it does so only indirectly, incidentally, and remotely, and not so as to burden or impede them, and, in the particulars in which it touches those transactions at all, it is not in conflict with any express enactment of Congress on the subject, nor contrary to any intention of Congress to be presumed from its silence." (A clear recognition of the "exclusive field" principle.).

Applying that quotation to the case at bar, we find that the Arizona statute "considered in its own nature" is "a regulation of interstate commerce" and that "so far as it affects transactions of commerce among the states" it does so directly and not, as in the Alabama Case, merely "indirectly, incidentally and remotely"; also, in the instant case, the Arizona law burdens and impedes interstate commerce, and is "contrary to any (the) intention of Congress to be presumed from its silence" in a matter which, if regulated at all, should be regulated by Congress.

N. C. & St. L. Ry. Co. v. Alabama (1888), 128 U.S. 96, 32 L. ed. 352, is a companion to Smith v. Alabama, supra, in that it follows much the same line of reasoning, and in fact quotes extensively from the

opinion. So far as the present case is concerned, it is sufficient to note that the Court pointedly remarked that the state regulation under attack, which required all operating employees on railroads to be examined and certified as being free of color blindness, was of the same character as the statute requiring engineers to be examined and certified; the Court saying further (128 U.S., at p. 101; 32 L.ed., at p. 354):

"Such legislation is not directed a ninst commerce, and only affects it *incidentally*, and therefore cannot be called, within the meaning of the Constitution, a regulation of commerce."

The Alabama Cases must also be read with the qualification expressed by the Court at the end of the opinion in Illinois Central Railroad Co. v. Illinois (1896), 163 U.S. 142, 41 Led. 107, that (page 154):

"The? State may make reasonable regulations to secure the safety of passengers, even on interstate trains, while within its borders. But the State can do nothing which will directly burden or impede the interstate traffic of the company, or impair the usefulness of its facilities for such traffic. Railroad Co. v. Richmond; 19 Wall. 584, 589; Stone v. Farmers Loan & Trust Co., 116 U.S. 307, 334; Smith v. Alabama, 124 U.S. 465."

The Illinois Central Case was relied on in the opinion in the First Arizona Case. It was also cited with approval in Cleveland etc. Ry. Co. v. Illinois (1900), 477 U.S. 514, 44 L.ed. 869. The Cleveland Case refers at the beginning of the opinion to a number of cases, including Smith v.

Alabama, supra, and New York etc. R. R. v. New York, supra, and characterizes them as "local laws," saying (at p. 517)—and the disjunctive "or" is significant:

"In none of these cases was it thought that the regulations were unreasonable or operated in any just sense as a restriction upon interstate commerce." (Emphasis supplied.)

But what to us is the most persuasive argument that, by his opinion in the Georgia Headlight Case, Mr. Justice Hughes did not depart from the "national field" doctrine, is the list of cases he cited following his quotation from the Alabama Case. He included the Minnesota Rate Cases, supra—in which he wrote the opinion—and referred to page 402 of that opinion.

In the portion of the opinion immediately preceding that page, and as shown by our prior quotation therefrom, it was held "that the states cannot, under any guise, impose direct burdens upon interstate commerce." that the states are not permitted directly to regulate or restrain that which, from its nature, should be under the control of the one authority, and be free from restriction save as it is governed in the manner that the national logislature constitutionally ordains." Thereafter, with the citation of many authorities, the opinion enumerated certain types of regulation which were forbidden to the states, and continued with the following language, already quoted (230 U.S., at p. 402):

But within these limitations there necessarily remains to the States, until Congress acts, a wide range for the permissible exercise of power approximation.

priate to their territorial jurisdiction although interstate commerce may be affected. It extends to those matters of a local nature as to which it is impossible to derive from the constitutional grant an intention that they should go uncontrolled pending Federal intervention. . . .

its internal commerce, to provide local improvements, to create and regulate local facilities, to adopt protective measures of a reasonable character in the interest of the health, safety, morals and welfare of its people, although interstate commerce may be incidentally or indirectly involved." (Emphasis supplied.)

The Georgia Headlight Case was decided June 4, 1914. When the Court came to decide the First South Covington Case (235 U.S. 537) on January 5, 1915, evidently the Georgia Case was not an obstacle.

We think it apparent that in speaking for the Court in the Georgia Headlight Case, Mr. Justice Hughes did not intend to depart from the principle, upon which we insist, that a state may legislate in the absence of congressional regulation only as to matters of local concern as described in the Minnesota opinion,

The essential difference between the Georgia Headlight. Case and the case at bar is that the matter of locomotive headlights lies in the concurrent field, in which a state may prescribe safety regulations for curs and trains, even though they are engaged in interstate commerce, and such regulations, if not unreasonable or arbitrary, or directly affecting commerce, will be valid until and unless. Congress acts on the subject; while the regulation of the

number of cars in a train employed in interstate commerce, especially in the circumstances and with the results shown in the case at bar, lies within the field exclusively reserved for congressional action.

In the Georgia Headlight Case, as well as in the New York Car-Heating and Alabama Cases just referred to, there was no direct and material interference with interstate commerce, or substantial delay and obstruction thereto, as in Arizona under the challenged law. The interference and delay were regarded as speculative and negligible. It was pointed out by Mr. Justice Hughes, in the Georgia Case (234 U.S., p. 292), that if the plaintiff's fears became "realities," the remedy was with Congress. There is no such speculation here. The actual interference is real and substantial, resulting directly from enforced compliance with the law. Long trains are standard practice on the through main line that crosses Arizona, California, and New Mexico, except between Yuma and Lordsburg; and by thrusting the law's limitations between California and New Mexico, Arizona in effect chokes and directly interferes with the continuous stream of interstate transportation that passes across the Arizona "bridge."

Requiring a safety device on a locomotive, or a safer method of heating cars, are in a different category, and have effects quite different, from the actual interference with and obstruction to the free flow of interstate commerce within and without the state, that result from limiting the length of interstate trains. This Court has not hesitated to interpose the protection of the Commerce Clause when train speration is actually interfered with. By the Covington.

Case (235 U.S. 537), and the Train-Schedule Case (M. K. & T. Ry. Co. v. Texasi(1918), 245 U.S. 484, 62 L.ed. 419), the Court has denied the interpretation appellee's counsel have sought to place upon the decision in the Georgia Case: that is, that by that case this Court intended to give implied approval to a state train-limit law. In the Coungton Case both the Headlight and Car-Heating Cases were characterized as "only incidentally affecting interstate business, and not subjecting the same to unreasonable demands." In

Southern Ry Co: v. R. R. Com. of Indiana (1915), 236 U.S. 439, 59 Leed. 665,

this Court (at page 446) clarified its intention in the Georgia Headlight Case by saying, just before citing that case, with respect "to the appliances with which certain instrumentalities of interstate commerce may be furnished, in order to secure the safety of employees, until Congress entered that field, the states could legislate as to equipment in such manner as to incidentally affect, without burdening interstate commerce."

Again, after citing the Georgia Case and other cases, the Court said (at page 447):

"Without, therefore, discussing the many cases sustaining the right of the States to legislate on subjects which, while not burdening, may yet incidentally affect interstate commerce, it is sufficient here to say that Congress has so far occupied the field of legislation relating to the equipment of freight ears with safety appliances as to supersede existing and prevent further legislation on that subject," (Emphasis ours.)

The Georgia Headlight, New York Car-Heating and Alabama Cases, which, necessarily, were discussed together,

are not therefore out of harmony with either the later or the earlier cases upon which we rely. They are leading cases, in a distinct group of cases, that hold that there is a concurrent field of regulation in which the state may legislate as to matters of local concern even though interstate commerce is affected, until Congress exercises its authority; that thereupon state legislation in that particular field is precluded and existing state legislation is suspended, even though it only supplements the congressional action; that the congressional action may be only to delegate to an administrative tribunal the power to regulate in the particular field, but will nevertheless be sufficient if the delegated power is duly exercised; further (and this is important) that even in the absence of congressional action in this concurrent field, the state law must not be unreasonable or arbitrary, and must not infringe the national interest in the regulation of commerce or materially obstruct the free flow thereof:

The Arkansas Full Crew Cases:

- C. R. I. & P. Ry. Co. v. Arkansas (1911), 219 U.S. 453, 55 L.ed. 290;
 - St. Louis, I. M. & S. Ry. Co. v. Arkansas (1916). 240 U.S. 518, 60 L.ed. 776;
 - Missouri Pacific R. Co. v. Norwood (1931), 283 U.S. 249, 75 Led. 1010 (modified in 283 U.S. 809).

These three cases involved the validity of the Arkansas Full Crew Law; the first case having considered those provisions of the Act which prescribe the minimum number of employees to be used in the operation of freight trains; the second having construed those provisions which

specify the number of men on switching crews within the city limits; while the third related to the validity of the law generally. None of these cases has any bearing upon the "national field" phase of the instant case. There is a marked distinction between a state, in the absence of Congressional legislation on the subject, prescribing the number of employees who must man a train or work together as a switch crew within the state, and the same state limiting the length of trains in interstate commerce. as they enter, pass through, or leave the state. Full crewlegislation relates only to the manning of trains; train limit legislation dictates how trains shall be made up, and greatly increases the number of trains, not only between points within the state, but when entering and leaving the state, and while in adjoining states. It is obvious that while a "full-crew" law enacted by a state may add expense to the operation of interstate trains, by requiring the employment of more men in train operation than the management might otherwise employ, it does not result in any delay to interstate traffic while crossing a state, or in any interference with interstate traffic as it enters or leaves the state.

A further important distinction between the Alphaneae. Full-Crew Cases and the instant case is, that in those cases no claim was made that the Arkansas Full-Crew statutes had extra territorial effect. While that point may have been incidentally involved, the opinions do not indicate that it was relied upon by the railroad companies as a ground of complaint, or that it was passed upon by either the statutes. That distinction between those cases and

the case at bar is very important, for the evidence here shows (and appellee perforce concedes) that the challenged law operates directly to control the lengths of appellant's interstate trains, not only within Arizona, but also for substantial distances in California, New Mexico, and Texas.

It would be only in occasional and inconsequential instances that a state full-crew law would have extra-territorial effect, in its practical operation. Train and enginemen are paid on the basis of hours served or miles run-(whigher results in the greatest pay for a tour on duty) and universally, eight hours or less on duty, or 100 miles or less run, constitute a day's work and entitle the train or engineman to a day's pay. Running an extra man across the state line, as a train leaves the state and to the yearest division terminal where crews are changed, or putting him on the crew at that nearest terminal as the train is about to enter the state, would in the vast majority of cases not increase his pay above that which he would be paid if he boarded or left the train exactly at the state ling Moreover, putting the extra man on, or taking him off, does not delay the train, or require it to be broken up before it enters the state, as does a train-limit law. In any event, that point does not appear to have been urged in the Arkansas Cases.

The Barnwell Case and Other Motor Carrier Cases:

In earlier discussions of the "national field" issue appelled has also frequently cited this Court's recent decision in the Barnwell Case (South Carolina Highway De-

partment v. Barnwell Bros. (1938), 303 U.S. 177, 82 Led. 734) and certain other decisions relative to state regulations of motor carriers on state highways, particularly:

Morris v. Duby (1927), 274 U.S. 135, 71 L.ed. 967; Sproles v. Binford (1932) 286 U.S. 274, 74 L.ed. 1167:

Maurer v. Hamilton (1940), 309 U.S. 598, 84 Led. 969.

& In the Barnwell Case, this Court was directly concerned with a challenge addressed to regulations imposed by the . Highway Department of South Carolina upon the weight and widths of motor vehicles, including those engaged in interstate commerce, operating upon its public highways. The evidence before the lower court was apparently conflicting upon the propriety and reasonableness of the limitations in question; and the court had undertaken to resolve that conflict, and had thereby reached the conclusion that the limitations were unreasonable and imposed unlawful burdens upon interstate commerce. That judgment was reversed on appeal, this Court holding that where a rational basis for the regulation was shown, and the means of regulation chosen were reasonably adapted to the end sought, the regulation would be sustained even though interstate commerce was incidentally affected.

There are a number of important features of the opinion which in our view deserve particular mention:

First, the case related to the regulation by a state of the use of its own public highways. The Court in this, as in many other cases, has recognized that the problem of regulation of vehicles on highways is peculiarly local

in character, and here observed a clear distinction between the regulation of vehicles on state-owned public highways, on the one hand, and privately-owned transportation agencies operating upon their own rights of way (i.e., railroads), on the other, saying (303 U.S., at pages 186-187):

to set its own limitation upon state control of interstate rail carriers so as to preclude the subordination of the efficiency and convenience of interstate traffic to local service requirements:

"But the present case affords no occasion for saying that the bare possession of power by Congress to regulate the interstate traffic forces the states to conform to standards which Congress might, but has not adopted, or curtails their power to take measures to insure the safety and conservation of their highways which may be applied to like traffic moving intrastate. Few subjects of state regulation are so peculiarly of. local concern as is the use of state highways. There are few, local regulation of which is so inseparable from a substantial effect on interstate commerce. Unlike the xailroads, local highways are built, owned and maintained by the state or its municipal subdivisions. The state has a primary and immediate concern in their safe and economical administration. present regulations, or any others of like purpose, if they are to accomplish their end, must be applied alike to interstate and intrastate traffic both moving in large volume over the highways. The fact that they affect alike shippers in interstate and intrastate commerce in large number within as well as without the state is a safeguard against their abuse," (Emphasis supplied.)

Second, this Court, although stating that in matters of local concern, and where the field of regulation is joint, the state may act as to many subjects unless and until Congress acts and thereby occupies the field, also reaffirmed the principle for which we contend: namely, that the Commerce Clause of its own force forbids state regulation upon those subjects which by their very nature are of national concern. The Court said (at pages 185-186):

"The commerce clause, by its own force, prohibits discrimination against interstate commerce, whatever its form or method, and the decisions of this Court have recognized that there is scope for its like operation when state legislation nominally of local concern is in point of fact aimed at interstate commerce, or by its necessary operation is a means of gaining a local benefit by throwing the attendant burdens on those without the state. (Citing cases.)

It was to end these practises that the commerce clause was adopted."

That expression is particularly applicable here. For the challenged law, whether or not originally intended as a regulation of interstate commerce, is "in point of fact aimed at" that commerce, the traffic affected by it being approximately 94% interstate in character. The heavy burden cast upon appellant's operations thus creates obvious discriminations against such commerce. The cost of compliance cannot be recouped except by either increasing the appellant's rates and fares and thus its total revenues, or by reducing its expenditures for other purposes, and thus in some degree its ability to render adequate service. In either event, the burden is borne by inter-

state commerce, and principally by appellant's patrons shipping and traveling from and to points outside of Arizona. In a word, interstate commerce bears the added burden so that limited benefits, principally by way of increased employment opportunities, may be afforded to a comparatively few residents of Arizona.

Third, the Court did not say, as appellee has heretofore attempted to infer, that a purported police-power statute must be upheld merely because supported by expressions of partisan opinion given by interested witnesses. The Court's opinion makes it clear that a challenged state regulation must bear a reasonable relation to its supposed object; and must be founded on some rational basis. The presumption that a legislature will not save the regulation if, upon an examination of the record, it is clear that the law does not rest upon a rational foundation. And how could the Arizona Legislature of 1912 have known what the railroad operation of 1941 would be?

Appellee's principal emphasis, in its citation of the Barnwell Case upon the "national-field" point, has been directed, however, to the proposition that it is not the Court's function to determine whether the burdens imposed upon interstate commerce by state regulation, otherwise permissible, are too great. That argument entirely misses the point now under discussion. The excerpts from the opinion upon which appellee has relied clearly show that before any need arises for the determination whether too great a burden is imposed, the challenged regulation must be shown to be "otherwise permissible". A regulation which attempts to deal with a matter falling

within the exclusive national field is not "otherwise", or in any degree, "permissible": the Constitutional grant, of its own force, has precluded the states from attempting any such regulation, no matter whether it bears heavily or lightly upon interstate commerce.

Minnesota Rate Cases, supra (230 U.S. 352, 309-400);

Milk Control Board v. Eisenberg Farm Products, supra (306 U.S. 346, 351);

Edwards v. California, supra (314 U.S. 160, 174, 176).

It is impossible to draw, from the Barnicell Case, any support for the argument that the exclusive national field does not exist, or that the Train-Limit Law does not invade that field. On the contrary, this Court in both the Barnicell opinion itself, and as well in later opinions, particularly the Milk Control Board Case, California v. Thompson, and Parker v. Brown, has recognized and reaffirmed the existence of the exclusive national field, where all manner of state regulation is prohibited, even in the absence of congressional action.

It is noteworthy that the Barnwell Case is cited in the opinions in both the Thompson and Parker Cases (309 U.S., p. 116; 317 U.S., p. 362), in direct connection with the passages in those two opinions in which emphasis is Jaid upon the national interest in preserving uniformity of regulation in matters of national concern, and maintaining the free and unobstructed flow of commerce.

The Morris, Sproles and Maurer Cases resemble the Barnwell Case, in that they involved simply the validity of state regulations of motor carriers operating spon-

state highways, with particular reference to weights, lengths, and sizes. In fact, these decisions are largely along the same lines as the *Barnwell* decision. Obviously, and as was fully recognized, particularly in the *Barnwell Case* (compare the excerpts quoted in the preceding discussion), the regulation of truck weights and lengths for the purpose of preserving state highways is quite a different thing from the regulation of lengths of freight and passenger trains entering the state upon; and using in the state, in continuous journeys in interstate commerce, a line of railroad in private ownership.

In the Maurer Case, this Court recognized and commented at length upon the essentially different problems involved in the national regulation, on the one hand, of rail carriers "operating over roads and with privately owned and controlled equipment, with standards of roadbed, operation and equipment substantially uniform throughout the country"; and on the other, the regulation of vehicular traffic over the highways of the several states. As to the latter, it said that the problem bore little resemblance to the regulation of other systems of transportation, because it involved a far more varied and complex undertaking; the differences between highway characteristics and usage in the various states being substantial, while state regulation, developed over a period of years, had been directed to the safe and convenient use of highways and their conservation with reference to varying local needs and conditions (309 U.S., at pp. 604-605).

In none of these cases was any claim made or sustained that the state regulations had other than incidental

effects upon interstate operations; nor do these decisions warrant any argument that this Court should sustain a state enactment, such as the Train-Limit Law, which directly, substantially and immediately controls and regulates interstate commerce. On the contrary, it may be particularly noted that in the Sproles Case, Mr. Chief. Justice Hughes, who rendered the opinion, referred to his own prior opinion in the Minnesota Rate Cases, supra, and particularly to pages 399 and 400 of that opinion, and declared that the regulations adopted by the State fell within that class where states may take action in matters. admitting of diversity of treatment, according to specials requirements of local conditions; but not, as specifically stated on page 400 of the Minnesota opinion, in any manner so as to impose direct burdens upon interstate commerce, or to regulate directly or restrain, that which from its nature should be under the control of the one authority and free of restriction, save as it is governed . in the manner that the national legislature constitutionally ordains.

We conclude our argument upon the "national field" issue by quoting that portion of the memorandum opinion of the trial court in which the point is discussed (R. 4047):

"There is a field of regulation of interstate activities which, under the Commerce Clause, is exclusively reserved to the National Government, and I am firmly convinced that the subject of the length of trains engaged in interstate traffic falls within that class. This for the reason that the subject matter is national in its character, requiring uniformity of regulation by

a single authority. If each state was at liberty to regulate the conduct of carriers while within its jurisdiction, the confusion likely to follow could not but be productive of great inconvenience and unnecessary hardship. The very purpose of the Commerce Clause was to insure uniformity of regulation of interstate commerce against conflicting, and discriminating state legislation, such as the law in question. The absence of any act of Congress on the subject of train lengths is equal to its declaration that commerce in that matter shall be free. In other words, the inertia of government should be on the side of freedom of commerce, rather than on the side of restraint of commerce. The determination of this entire case might well be decided upon this exclusive Federal field doctrine, which is in effect saying that Arizona never had the right to pass this legislation in the first instance."

This expression unquestionably sets forth the principles correctly applicable to the case at bar, as declared in the controlling decisions of this Court. It follows that the state supreme court, which neither noticed nor discussed the "national field" issue, and particularly failed (unless possibly by indirection) to state any conclusion thereon, erred as a matter of law in such omission.

. We respectfully submit that this Court should correct that error by holding and declaring:

(1) The subject matter of the length and consist of uncerstate trains is clearly shown to be of such nature that, if regulated at all, the regulation should be prescribed by a single nation-wide authority.

- (2) Said subject matter therefore falls within the exclusive national field, and state regulation is not permissible, even in the absence of affirmative action by Congress.
- (3) Because the subject matter is thus exclusively national in character, it is unnecessary, in determining whether the state regulation is invalid as an invasion of the national field, to consider whether it is a proper police-power measure, either in the interest of safety or otherwise; and it is equally unnecessary to undertake to consider whether any actual financial burden is imposed upon interstate commerce, or any physical interference obstruction created. The mere fact of entry into a field of regulation which is a subject of national concern, where national regulation is indispensable if any be required, is sufficient to invalidate the law regardless of its tangible effects open interstate commerce, or its real or claimed relation to public health and safety. Since the subject matter falls within the national field, where "a general system or uniformity of regulation is required," the power of the national government is exclusive; the state cannot regulate under any pretext; and any reasons, whether of safety or otherwise, ascribed or claimed for attempted. action by the state in the field become wholly immaterial.

2

THE TRAIN-LIMIT LAW REGULATES INTERSTATE COMMERCE WITH EXTRATERRITORIAL EFFECT.

(Assignment of Error No. 2)

In its Conclusion of Law No. III (R. 4035-4036) the trial court held that the challenged law is unconstitutional in violation of the Commerce Clause, because its neces-

sary and inevitable effect is to regulate the lengths of appellant's interstate trains in the adjacent states of California. New Mexico, and Texas, as well as in Arizona in other words, because it operates with extraterritorial effect.

The opinion of the state court contains no mention whatever of this point—not even the implied disapproval of the lower court's reasoning upon the other major issues which may be said to follow from the lengthy quotation (R. 4063-4066) from the opinion in the Oklahoma Train-Limit Case. For while each of these other points was discussed at some length in that opinion, the question of the possible extraterritorial effect of the Oklahoma law is not referred to, and apparently was not presented to that court. The issue is nevertheless important in the present case and, in view of the decisions of this Court, should be regarded as controlling, irrespective of the conclusions reached upon the other issues.

The extraterritorial effects of the law are widespread, substantial, and completely unavoidable. The unchallenged testimony shows that, in order to comply strictly with the law's testrictions, appellant must reconsist (i.e., reduce or build up) its trains at points outside Arizona; that it is, in a practical sense, impossible to locate the terminals required for these operations exactly at the state lines. At the eastern boundary of the state the reconsisting operations are and for years have been performed at points outside of Arizona; on the principal main freight line, at Lordsburg, New Mexico, or points farther east. At the westerly boundary, reconsisting operations have been performed at Yuma, which is physically

within Arizona, and extraterritorial effects are thus largely avoided; but although this practice has prevailed for many years, there can be no question (and appellee's counsel-have in effect conceded) that absolute compliance with the law would require appellant to perform the reconsisting operations at some point in California (R. 1918).

In any event it is not disputed that the inevitable effect of the law is to control (i.e., to "regulate") the lengths of all trains for at least 23 miles in New Mexico (the distance from Lordsburg to the boundary), and as to a substantial proportion (approximately 75 per cent of the freight trains) this control extends as far east as El Paso, more than 170 miles beyond the boundary, and into the State of Texas. In the case of passenger trains, the reconsisting operations compelled by the law are frequently performed at El Paso, and occasionally at points in California; so that as to passenger-train operation the extraterritorial control extends for 171 miles. beyond the easterly boundary of Arizona, and as far west as Los Angeles, California, 250 miles from the Arizona boundary. These extraterritorial effects of the law are, we repeat, wholly unchallenged by appellee.

The reconsisting operations themselves are necessary, solety because of the law's requirements. Since they are largely performed at points outside of Arizona, they constitute an additional extraterritorial effect of the law upon appellant's operation of its interstate trains. This further extraterritorial effect of the law is likewise wholly unchallenged.

The enforced extraterritorial operation of shorter trains, and as the reconsisting points, and as far as Los Angeles

and El Paso at certain times, necessarily causes and requires appellant to operate additional train service in the extraterritorial districts where such shorter trains are compelled to be run, and to incur additional expense of that service. That this additional extraterritorial train service is compelled by the law is likewise virtually conceded by appellee; and while certain items of the expense thereof may be questioned, it cannot be disputed that some expense, of material amount, is incurred.

The evidence establishes that the reconsisting operations result in delays to all "long" trains, and the cars therein, incident to the operations themselves; further, that the cars required to be set out at the reconsisting points to await movement by following trains are delayed for varying periods. Many of these delays, which are wholly due to the law, and would be avoided if it were set aside, occur at points outside of the state. The law thus contributes still another extraterriterial effect, by way of obstructions to and interferences with the continuous movement of interstate commerce, imposed at points outside Arizona.

Appellee has never challenged our convincing showing that the law thus inevitably operates with extraterritorial effect. It is difficult to see how any such challenge could be attempted. Appellant's evidence on the point is clear and convincing; moreover, appellee failed to introduce any evidence of its own, and did not even attempt to indicate how the extraterritorial effects of the law, outside of Arizona, could be avoided or minimized, if the law were fully complied with within the state. As we have said, its counsel even admitted that the law can be com-

pletely observed within Arizona, only if its restrictions are also made effective in those portions of the adjoining states immediately beyond the boundary lines, and extending "* to the next terminal" (R. 1918):

In a number of cases this Court has reviewed state laws or regulations the necessary effects of which were directly to regulate commerce beyond their own boundaries. The consistent trend of these decisions supports the principle that a state may not, consistently with the power delegated to the Federal Government by the Constitution, regulate transactions in interstate commerce occurring in part, or entirely, outside of the state; and that when a state law or regulation, whatever its merits or desirability of necessity and by inevitable and inescapable effect regulates and controls interstate commerce outside of the state boundaries, as does the Train-Limit haw, it thereby conflicts with the Commerce Clause and must be set aside.

In

Hall v. DeCuir, supra (95 U.S. 485),

the point is very definitely presented. We call attention to the following language from the opinion (95 U.S., at page 488):

"The statute now under consideration... does not act upon the business through the local instruments to be employed after coming within the state, but directly upon the business as it comes into the state from without or goes out from within. While it purports only to control the carrier when engaged within the state, it, must necessarily influence his conduct to some extent in the management of his business.

throughout his entire voyage. His disposition of passengers taken up and put down within the state, or taken up within to be carried without, cannot but affect in greater or less degree those taken up without and brought within, and sometimes those taken up and put down without.' (Emphasis supplied.)

The decision in the First South Covington Case is equally in point. As this Court said, to comply with the regulations imposed by Covington would have required about one half more than the number of cars being presently operated by the railway, and more cars than could be operated in Cincinnati within its franchise rights. That the Court regarded the regulations as extraterritorial in operation, and therefore void, clearly appears from the following portion of the opinion (235 U.S., at pages 547-548:

"We think the necessary effect of these regulations is not only to determine the manner of carrying passengers in Covington and the number of cars that are to be run in connection with the business there, but necessarily directs the numbers of cars to be run in Cincinnati, and the manner of loading them when there, where the traffic is much impeded and other lines of street railway and many hindrances have to be taken into consideration in regulating the traffic. If Covington can regulate these matters, certainly Cincinnati can, and interstate business might be impeded by conflicting and varying regulations in this respect, with which it might be impossible to comply. On one side of the river one set of regulations. might be enforced, and on the other side quite a different set, and both seeking to control a practically continuous movement of ears." (Emphasis supplied.)

The decision in

Ben man v. C. & N. W. Ry. Co. (1888), 125 U.S. 465, 31 L.ed. 700,

is likewise directly in point. The case involved the validity? of a statute of lows which forbade a common carrier. knowingly to transport into the state any intoxicating lighter. A shipment had been tendered to the carrier at a station in Illinois; and having been refused for transportation, this suit had been brought in the federal court for Illinois. The carrier pleaded its inability receive and transport the shipment, telying upon the prohibition, of the lown statute. This Court held that this plea could. and be sustained, declaring the lowa law to be void because it was a regulation of interstate commerce, and particularly because it operated with extra territorial effect upon interstate transportation, which would be commenced outside of Iowa. The Court referred to prior cases, including certain of the decisions cited in the prereding subdivision of this argument, in which it had lieen declared that there are certain classes, of subjects, as to which the power of regulation by the Federal Government under the Commerce Clause is exclusive, because there can of necessity be only one system or plan of regulation; that won action by Congress in such cases is a declaration of purpose that the commerce shall be free. It then said (at page 486):

"The principle thus announced has a more obvious application to the circumstances of such a case as the

There was at that time no Federal statute similar to the Webb-Ken on Act which was passed later to remove the protection of the Commerce Clause from shipments of intoxicating liquor into a "dr" state.

present, when it is considered that the law of the State of Iowa under consideration, while it professes to regulate the conduct of carriers engaged in transportation within the limits of that state, nevertheless materially affects, if allowed to operate, the conduct of such carriers, both as respects their rights and obligations, in every other state into or through which they pass in the prosecution of their business of interstate transportation. In the present case, the defendant is sued as a common carrier in the State of Illinois, and the breach of duty alleged against it is a violation of the law of that state in refusing to receive and transport goods which, as a common carrier, by that law, it was bound to accept and carry. It interposes as a defence a law of the State of lowa, which forbids the delivery of such goods within that state. Has the law of Iowa and extra-territorial force which does not belong to the law of the State of Illinois? If the law of Iowa forbids the delivery, and the law of Illinois requires the transportation, which of the two shall preyail? How can the former make void the latter? In view of this necessary overation of the law of lowa, if it be valid, the language of this court in the case of Hall v. DeCuir, 95 U.S. 485, 488, is exactly in point." (Emphasis supplied.)

The Court then referred at length to the opinion in Hall v. DeCuir, supra; and after enumerating the various matters properly subject to state legislation and the police power, and quoting at length from Robbins v. Shelby Taxing District, supra (120 U.S., at page 493) continued:

"The section of the statute of Iowa, the validity of which is drawn in question in this case, does not fall within this enumeration of legitimate exertions of the police power. It is not an exercise of the jurisdiction

of the state over persons and property within its limits. On the contrary, it is an attempt to assert that jurisdiction over persons and property within the limits of other states. It seeks to prohibit and stop their passage and importation into its own limits, and is designed as a regulation for the conduct of commerce before the merchandise is brought to its border. At is not one of those local regulations designed to and facilitate commerce . . . It is, on the other hand, a regulation directly affecting interstate commerce in an essential and vital point. If authorized, in the present instance, upon the grounds and motives of the policy which have dictated it, the same reason would justify any and every other state regulation of interstate commerce upon any grounds and reasons. which might prompt in particular cases their adoption. It is, therefore, a regulation of that character which constitutes an unauthorized interference with the power given to Congress over the subject. If not in contravention of any positive legislation by Congress, it is nevertheless a breach and interruption of that liberty of trade which Congress ordains as the national policy, by willing that it shall be free from restrictive regulations."

In answer to the contention that the statute in question was designed only to prohibit sales within Iowa, the Court said that that argument would not be sustained because the right to prohibit sales arises only after the transportation has been determined, and the sales which the state may forbid are those within its jurisdiction. The Court said further (at page 499):

"Its (the state's) power over them does not begin to operate until they are brought within the territorial limits which circumscribe it. It might be very convenient and useful in the execution of the policy of prohibition within the state to extend the powers of the state beyond its terriforial limits. But such extra-territorial powers cannot be assumed upon such an implication. On the contrary, the nature of the case contradicts their existence. For if they belong to one state, they belong to all, and cannot be exercised severally and independently. The attempt would necessarily produce that conflict and confusion which it was the very purpose of the Constitution by its delegations of national power to prevent."

The general principle that state statutes carnot validly operate beyond the boundaries of the state by which they are made is, of course, of long standing.

In-

Pennoyer v. Neff (1877), 93 U.S., 714, 24 Led. 565,

this Court, after stating that each state has exclusive jurisdiction within its territory, subject to the paramount provisions of the Federal Constitution, said further (at page 722):

"The other principle of public law referred to follows from the one mentioned; that is, that no state can exercise direct jurisdiction and authority over persons or property without its territory."

In.

Olmsted v. Olmsted (1910), 216 U.S. 386, 54 L.ed. 530.

it was said (at page 395):

"The legislature of Michigan had no power to pass an act which would affect the transmission of title to lands located in the State of New York." In

Baldwin v. Seelig (1935), 294 U.S. 511, 79 L.ed. 1032.

York to project a police power statute, directly affecting interstate commerce, beyond its own boundaries and into the territorial limits of another state. The statute undertook to prescribe the minimum prices to be paid by distributors, for milk brought from any source, either within or without the state, into New York City and there sold for public consumption. The Court said (294 U.S., at page 521):

"New York has no power to project its legislation into Vermont by regulating the price to be paid in that state for milk acquired there. So much is not disputed."

In

Connecticut General Life Insurance Co. v. Johnson (1938), 303, U.S. 77, 82 Led. 673,

this Court, in its decision relating to the power of the state to impose taxes upon a foreign corporation with respect to transactions taking place in another state, said (at pp. 80.81):

"... A state which controls the property and activities within its boundaries of a foreign corporation admitted to do business there may tax them. But the due process clause denies to the state the power to tax or regulate the corporation's property and activities elsewhere." (Citing cases.)

In

Magnolia Petroleum Co. v. Hunt (1943), 320 U.S. 430, 88 L.ed. Adv. 161,

this Court, in the course of a discussion of the effect to be given, in the courts of Louisiana, to a final judgment obtained in the courts of Texas, said (pp. 439, 440):

"The full faith and credit clause like the commerce clause thus became a nationally unifying force.

But whether the Texas award purported also to adjudicate the rights and duties of the parties under the Louisiana law or to control persons and Courts in Louisiana is irrelevant to our present inquiry. For Texas is without power to give extraterritorial effect to its laws." (Citing cases.)

In

McLeod v. Dilworth. Co. (1944), 322 U.S. 327, 88 L.ed. Adv., 910,

this Court affirmed a decision of the Supreme Court of Arkansas, holding that the Commerce Clause prohibited the application of an Arkansas sales tax statute to sales carried on and completed in Tennessee, even though the goods after purchase were shipped to a destination in Arkansas for subsequent use; saying (at pp. 330-331):

- transaction [a sale made in Tennessee] would be to project its powers beyond its boundaries and to tax an interstate transaction.
- before us and unlike the tax on the enjoyment of the goods sold, involves an assumption of power by a State which the Commerce Clause was meant to and. The very purpose of the Commerce Clause was

to create an area of free trade among the several. States. That clause vested the power of taxing a transaction forming an unbroken process of interstate commerce in the Congress, not in the States.

In its arguments addressed to the courts below, relating to this issue, appellee has relied largely upon the New York Car Heating, Georgia Electric Headlight, Arkansas Full Crew, and Barnwell Cases, each of which has already been reviewed in our discussion of the "exclusive national field" phase of the case. Appellee has contended particularly that the statutes or orders which in those cases were sustained would nevertheless substantially affect interstate commerce, beyond the state boundaries, because they would require either a complete change of equipment at the state line, or an adjustment of the entire interstate operation to the most restrictive requirement encountered along the route.

None of these cases affords any real support for appellee's argument; on the contrary, they all recognize the fundamental principle, stated in the Minnesota Rate Cases, and again in Milk Control Board v. Eisenberg Farm Products, that even when acting in the "joint field," for the purpose of making regulations to seet the "special requirements of local conditions," the states' freedom of action is limited to "their respective jurisdictions." Thus, in the Minnesota Rate Cases, this Court said (230: U.S., pp. 309-400, 402):

"In other matters, admitting of diversity of treatment according to the special requirements of local conditions the States may act within their respective jurisdictions until Congress sees fit to act

"But within these limitations (of subject matter) there necessarily remains to the States, until Congress acts, a wide range for the permissible exercise of power appropriate to their territorial jurisdictions although interstate commerce may be affected." (Emphasis supplied.)

The New York Car-Heating and Georgia Headlight Cases contain nothing to indicate approval by this Court of any state police-power regulation having the farteaching extra-territorial effects shown to result from the Afizona law. In the Car-Heating Case, the Court was careful to specify that the power of the state in the premises was "to regulate the relative rights and duties of those within its limits"; that "the state's plenary authority existed within its territorial limits" (165 U.S., at p. 632; 41 L.ed., at p. 854). (We have previously shown that the exercise of this "plenary authority" cannot, in the light of later decisions, involve any obstruction to the free flow of commerce, or impairment of the mational interestion uniformity of regulation of matters requiring such regulation.)

In the Georgia Headlight Case, this Court said that the state's power to regulate, even though interstate commerce might incidentally be "inconvenienced," was for the purpose of protecting "life and property within its borders" (234 U.S., at p. 292).

The Barnwell Case plainly affords no support for appellee, for no question of extra territorial effect was involved. In point of fact, this Court, in a footnote to its eminion (303 U.S., p. 185), remarked:

"State regulations affecting interstate commerce, whose purpose or effect is to gain for those within the state an advantage at the expense of those without, or to burden those out of the state without any corresponding advantage to those within, have been thought to impinge on the constitutional prohibition even though Congress has not acted." (Emphasis supplied.)

Hall v. DeCuir, Bouman v. C. & N. W. Ry. Co., and Baldwin v. Seelig, supra, among other cases, were cited to support this statement, and with apparent approval.

In the First Arkansas Full Crew Case (219 U.S. 433), this Court likewise indicated that the state's power must be confined within its own territorial limits: the protection claimed to be afforded by the law being, as the Court said, extended to interstate travelers as well as to local citizens, while within Arkansas (219 U.S., at p. 465); and it was further said (at p. 466) that this regulation related to the rights and duties of all within the jurisdiction.

In Sproles v. Binford, supra (286 U.S. 374), also one of the cases upon which appellee has heretofore greatly relied, this Court again followed the doctrine declared in the Minnesota Rate Cases; for the Court referred; (286 U.S., at p. 390) to the portions of that opinion already cited in this discussion, and to

"the established principle that in matters admitting of diversity of treatment, according to the special requirements of total conditions, the states may act within their respective jurisductions until Congressees fit to act." (Emphasis supplied.)

The Sproles opinion also directly supports our contention that local regulation by a state within its borders may not, by necessary effect, extend beyond those borders, for the Court said, immediately following the excerpt last quoted:

"As this principle maintains essential local authority to meet local needs it follows that one state cannot establish standards which would derogate from the equal power of other states to make regulations of their own." (Emphasis supplied.)

Paraphrasing this language: it is obvious that Arizona cannot establish maximum standards for the lengths of traits, which by necessary effect also prevail in California and New Mexico (as admittedly the train-limit restrictions do), and derogate from the equal power of those states to make corresponding regulations of their own. The very fact, however, as we earnestly contend, that a state regulation of the lengths of interstate trains operating in continuous movement over a through route cannot be confined to the state of its making, but must, if fully enforced within those boundaries, also directly regulate and control operations in adjoining states, demonstrates that the entire subject matter falls within the exclusive national field.

We anticipate that appellee will also rely largely, as

Terminal Railroad Association v. Brotherhood, supra (318 U.S. 1, 87 L.ed. 571).

That case involved the validity of an order of the Illinois Commerce Commission requiring cabooses to be attached to cuts of cars, for certain inter-yard movements at and adjacent to East St. Louis, Illinois, including movements across the Mississippi River bridges, and thus from and to locations in the adjacent State of Missouri. This Court remarked that on its face the order required only that cabooses be used within Illinois, and did not require their use in Missouri, but assumed that as a practical consequence of the order cabooses used in Illinois on the interstate runs must also be used at least as far as the nearest switching point in Missouri. The Court said (318 U.S., at pp. 8, 9):

"If lack of facilities at the State lines requires as a practical matter that in order to provide cabooses in Illinois appellant must also provide them for some distance in Missouri, that fact does not preclude Illinois from regulating the operation to the limits of its territory." (Citing Missouri P. R. Co. v. Kansas, 216 U.S. 262, 54 L.ed. 472; South Covington & C. R. Co. v. Covington, supra, 235 U.S. 537, 59 L/ed. 350.)

The Terminal Gase is readily distinguishable on its facts from the case at bar. The opinion shows that any extraterritorial effects resulting from the Illinois Commission's order could properly be described as merely incidental and indirect; in fact, of no material consequence at all. There was certainly no real and substantial burden and interference, as in the instant case, whereby trains and cars moving in a continuous course in interstate commerce are subjected to a regulation which directly and completely controls their movement, for long distances before they reach and after they have left the state; an

extra-territorial regulation which admittedly cannot be avoided if the law is literally complied with inside the state. While the measure of the financial burden incurred because of the extra-territorial effect considered in the Terminal Case is not stated in the opinion, it must have been very slight; the movement of a caboose, attached to a cut of cars, for a few hundred yards beyond the state line, could hardly involve more than a mere nominal expense over and above the cost otherwise. But the burden imposed by the Arizona law, solely because of the compelled extra-territorial operations, and excluding any burden associated with the effects of the law within the state, is nearly \$100,000 per year, based upon 1938 operations.

The Court's reference in the Terminal Case (318 U.S., at v. 8) to the "governing principles" of Parker v. Brown, supra (317 U.S. 341, 361-363), emphasizes the distinction. For the governing principle stated in that case is that "state regulations of matters of local concern" which also regulate interstate commerce are to be submined, provided they relate to a matter of local character, which may be appropriately regulated locally, and because of its nature may never be adequately dealt with by Congress, and provided also that the national interest in the regulation of commerce by a single authority is not impaired, nor the free flow of commerce materially obstructed.

The Train Limit Law does not come within the classification thus stated. It regulates a matter clearly of national and not local concern, for which possibly varying local regulations are wholly inappropriate; indeed, its very nature shows that it can be dealt with adequately only by Congress, if any regulation is needed. The law likewise directly and substantially impairs the national interest in uniformity of regulation, and seriously obstructs the free flow of commerce. Since it is thus wholly distinct, in both character and subject matter regulated, from the order involved in the Terminal Case, clearly the principle of the Parker Case cannot be invoked to sustain the law; and it follows equally that in considering the extra-territorial point the Terminal Case has no application.

Apart from these considerations, it is clear that the Court did not intend, in the Terminal Case, to announce or approve any general principle that an admitted extraterritorial regulation of interstaté commerce shall be disregarded as immaterial, in considering the validity of a state police-power regulation. This is made clear by the citation, at the close of the opinion, of the First South Conington Case. In that case, as the Court points out (318 U.S., at p. 9, Note 16) the local ordinance under attack was held invalid for the reason, among others. that there was a likelihood that serious burdens would be imposed upon interstate commerce because of the impossibility, of compliance with probable conflicting regulations; or, as stated in the Covington opinion itself, because the ordinance not only determined the manner of carrying passengers in Covington and the number of cars to be run there, but also necessarily "directs the number." of cars to be run in Cincinnati and the manner of load ing them when there. . \. On one side of the river one set of regulations might be enforced, and on the other

quite a different set, and both seeking to control a practically continuous movement of cars" (235 U.S. 537, 548). These same factors have been shown to exist in the present case: Compare our prior discussion of the "national field" point, and particularly the quoted excerpts from the recent opinion of the Interstate Commerce Commission sustaining as lawful its Service Order No. 85 (256 U.C. 523).

The discussion of extraterritorial effect of the law, in the opinion rendered by the trial court, is brief and to the point and merits the attention of this Court. It reads as follows (R. 4049):

. What is even more serious from the standpoint of those who seek to uphold the Act is it. extraterritorial effect. The challenged law lays hands upon interstate commerce moving over 'defendant's lines long before it reaches the physical boundaries of Arizona, and continues directly to affect and regulate that commerce long after it has left Arizona. As a practical matter, it nearly controls the length of passenger trains from Los Angeles to El Paso, and of freight trains from Yuma to Lordsburg, the latter point being twenty three miles east of the state line, and frequently on to El Paso. 171 miles beyond Arizona's boundary. Under the decided cases it is fatal for any police-power statute to operate with extraterritorial effect, and under the guise of police power no state may thus directly interfere with interstate commerce.'

In its disposition of this same issue, the court in the First Arizona Case held that the Train-Limit Law operated directly to interfere with interstate commerce and

imposed undue and unreasonable burdens thereon (as indicated by the excerpt quoted in the preceding subdivision of this brief); and emphasized the extraterritorial effect of that law, by pointing to the fact that eastbound trains of greater length than permitted by the law were required to be broken up into Arizona-size trains at terminals west of the Arizona boundary, which short trains were then handled across the state to terminals east of the Arizona line, where they were again consolidated into trains of larger size, and normal operating methods resumed.

The question of extraterritorial effect was also involved in the Mid-Train Caboose Case, in which it was said (1) F. Supp. at page 921):

Plaintiff challenges the order upon the ground of its extraterritorial effect. While the order designates only intrastate lines, it has a direct bearing on interstate commerce, Defendant commission, appreciating that in practical operation the order would have extraterritorial effect, said in its decision:

Legally, of course, any order made by this Commission must be limited to intrastate train operations. Since the company does not now have trackage facilities at Calvada adequate to permit of the addition or withdrawal of a caboose from trains at this point, it would be compelled, if the work is to be done there, to construct such facilities. The estimated cost of construction is \$6,700.00. The delay occasioned there by the necessary switching would be approximately thirty minutes. Practically, however, no such costs or delays would be occasioned, for obviously, if the company is re-

quired to comply with the trainmen's demand, it will actually perform such switching at Sparks. Nevada, its regular division point, seventeen miles east of the state line.

Plaintiff pleads that, in the interest of economy and expeditious handling of interstate commerce, it would, if forced to a choice, take the course which the commission stated was obvious."

As before stated, the court followed the principles declared in Hall v. DeCuir and the First South Covington Case, supra, and held the challenged order invalid.

In the Nevada Train-Limit Case the court, after making specific findings of fact setting forth the extraterritorial delays, interferences, and other burdens upon interstate commerce which the Nevada statute, if enforced, would inevitably create and impose in the adjoining states of California and Utah, adopted a conclusion of law reading as follows:

"IV. Said Train-Limit Law is further unconstitutional and void, and in violation of said Commerce Clause, because its necessary, practical, and inevitable effect is, and would and will be, to regulate the length of the interstate railroad trains operated over plaintiff's lines, not only within Neyada, but also in adjoining portions of the states of California and Utah."

We call attention to the close resemblance between the trial court's Conclusion of Law No. III (R. 4035-4036) dealing with the point now under discussion, and that adopted in the case last cited. That similarity is not in the least

fortuitous. The challenged law in the Nevada Case was virtually identical with the Arizona law, and its extracterritorial effects were necessarily substantially the same.

It is clear, we think, from the foregoing authorities that even when a state undertakes to regulate a subject even of local concern, and in so doing enacts a statute which, by necessary and inevitable result, directly and substantially regulates the conduct and flow of interstate commerce beyond the state's territorial boundaries and within the borders of other states, such regulation cannot be sustained; if it operates extraterritorially, it is invalid because in violation of the Commerce Clause. The challenged statute offends against this principle, because it admittedly and inevitably regulates and controls interstate commerce in the adjoining states.

THE TRAIN-LIMIT LAW DIRECTLY, MATERIALLY, AND SUB-STANTIALLY INTERFERES WITH, BURDENS, AND OR STRUCTS INTERSTATE COMMERCE.

(Assignments of Error Nos. 3 and 4)

In its Conclusions of Law Nos. IV and V (R. 4036), the trial court held the train-limit law invalid, under the Commerce Clause because its necessary and inevitable effects are directly, substantially and unreasonably to interfere with, regulate, and delay the operation of appellant's interstate, trains in Arizona and adjacent states and to impose direct, substantial and unreasonable final cial burdens upon the interstate commerce there conducted by appellant; and thus to impair the use and usefulness of its transportation facilities employed in interstate con-

merce. The substance of these two conclusions is also recited in paragraphs second and third of the trial court's judgment of February 11, 1942, reading as follows (B/ 4040):

Second: Said statute imposes direct, unreasonable and unlawful burdens upon, and interferes with, delays and obstructs interstate commerce, in violation of said Commerce Clause;

Third: Said statute impairs the use and usefulness of the transportation facilities employed by defeudant as_a common carrier engaged in interstate commerce:"

Although these conclusions were appropriately challenged by the state upon its appeal from the judgment, no specific discussion of the issue appears in the opinion of the state Supreme Court. However, the court, in quoting from the majority opinion in the Oklahoma Train Limit Case (R. 4063), included the passage (36 F.Supp., at p. 662) which expresses the view that a state police power regulation may be sustained, if reasonable, even though it have sarrily "affects interstate commerce in an incidental or indirect manner, but not otherwise." (Emphasis ours.) This reference, coupled with the reversal of the trial court's judgment, may be taken as expressing the court's combision that the law affects interstate commerce only "incidentally or indirectly," and "not otherwise."

The state court thus appeared to recognize the basic printiple of law upon which the trial court's conclusions are banded; namely, that a state statute, though claimed

of local concern), and even though assertedly or actable ally enacted in the interest of public health or safety, will be set aside as an infringement of the Commerce Clause if it directly substantially, and materially regulates, burdens, and interferes with interstate commerce. The court's reversal of the judgment can be assigned therefore to its failure or refusal either to recognize the facts, or, recognizing them, to view the interferences, obstructions, and burdens imposed by the law as direct, material and substantial.

The principle just stated, the correctness of which was plainly conceded in the Oklahoma Case, and thus inferentially by the state court in the case at bar, has been announced and followed in repeated decisions by this Court, many of which have been cited in conjunction with our preceding discussion addressed to the "exclusive national field" issue. We call particular attention to:

Illinois Central R. Co. v. Illiaois, supra (163 U.S., 142, 41 Leed, 107)

K. C. S. R. Co. v. Kaw Valley Brain Ge Dist., supra. (233 U.S. 75, 58 L.ed. 857):

The state court declared in its opinion (R. 4063) immediately preceding its lengthy quotation from the Oklahoma decision, that in that case, like the one at bar, the railroad company was compelled to expend great sums of money in order to comply with the restrictions that the great sum? (\$400,000 per year, as found by the trial court) was not a sufficiently direct and substantial burden to justify the invocation of the commerce clause.

- South Covington R. Co. v. Covington, supra (235 U.S. 537, 59 L.ed. 350);
- St. L.-S. F. R. Co. v. Public Service Comm., (1921), 254 U.S. 535, 65 L.ed. 389;
- Minnesota Rate Cases, supra (230 U.S., at pp. 400-401):
- Savage v. Jones (1912), 225 U.S. 501, 56 L.ed. 1182; Adams Express Co. v. New York (1913), 232 U.S.
- 14, 58 L.ed. 490:
- Scaboard Airline R. Co. v. Blackwell, supra (244-U.S. 310, 61 Led. 1176);
- M. K. & T. Ry. Go. v. Texas, supra (245 U.S. 484, 62 Led. 419);
- Milk Control Board v. Eisenberg Farm Products Go., supra (306 U.S., at pp. 351, 352);
- Davis v. Farmers Co-Op. Co., supra (262 U.S. 312, 67,L.ed. 996);
- La Coste v. Dept. of Conservation (1924), 263 U.S. 545, 68 Led. 437;
- Foster-Fountain Packing Co. v. Haydel (1929), 278 U.S. 1, 73 L.ed. 147;
- Brennan v. Titusville, supra (153 U.S. 289, 38 L.ed. 719);
- California v. Thompson, supra (313 U.S. 109, 85 L.ed. 1219);
- Parker v. Brown, supra (317 U.S. 341, 87 L.ed 315).

There is no question, and none has ever been raised by appellee, that the commerce affected and regulated by the challenged law is interstate in character, and thus

within the protection of the above principle. The fact is that substantially every train which moves on appellant's lines in Arizona and is thus controlled as to its length by the law, and certainly every train on the main lines, consists in large part (and in many cases entirely) of interstate traffic; that is to say, these trains are composed largely, if not altogether, of cars carrying freight and passengers moving in interstate commerce from and to points beyond Arizona, or between points in other states and points in Arizona; or of empty cars returning from points outside Arizona to points within or beyond that state. By comparison with the total traffic handled upon appellant's lines in Arizona, the volume of the local, i.e., intrastate, traffic is inconsiderable. It is apparent that substantially every train operated by appellant which is compelled to observe the limitations of the law is a train moving in and handling interstate commerce, and that' the effect of the law, apart from its effects upon operations in adjacent states, has been, is, and will be to lay hands upon, interfere with, and regulate, interstate commerce upon appellant's line within Arizona.

For the immediate purpose of this discussion the essential question is therefore not so much whether the commegce regulated is interstate in character, nor whether the law was enacted for the purpose of safety and is reasonably related to that purpose. Rather, the question is whether, even assuming (which we deny) that the law is a reasonable regulation of a matter of local concern, and so within the joint or concurrent field, on the one hand it actually regulates, interferes with, and burdens interstate commerce directly and substantially, and imposes

substantial and material obstructions to the free flow of such commerce, or whether, on the other, it affects interstate commerce only indirectly and incidentally, and without impairing the national interest.

As noted in subdivision 1 of this argument (the "national field"); appellee has contended before that (1) a state safety law or regulation, if reasonably related to that purpose, can never in legal contemplation impose more than indirect or incidental burdens or interferences upon interstate commerce; (2) therefore, the court cannot inquire into the actual effects of such a law upon interstate commerce, until and unless it has determined that the law has no possible rational basis; (3) the courts cannot give relief in any event, for if the burden or obstruction imposed upon interstate commerce is too great, resort must be had to Congress, which alone can provide the remedy. Addressing itself to the factual questions of the burdens and interferences occasioned by the law, appellee has also contended that (4) there is here no competent or otherwise adequate showing of actual burden, obstruction or interference, the extensive findings of the trial court to that effect being unsupported by sufficient lawful probative evidence;

The first of these expected contentions has already been reviewed in the preceding discussion, and there shown to be apposed to the principle and result of those decisions of this Court, in which state police power statutes or orders, in the interest of public health, safety or convenience and apparently bearing some reasonable relationship to that object, have been set aside because of threat, material and substantial burdens and obstructions

imposed upon interstate commerce. These decisions are clear to the effect that such interferences and obstructions cannot be excused or justified by resort to the "convenient apologetics of the police power." Thus, in Kansas City Southern R. Co. v. Kaw Valley Drainage District, supra, this Court said, in language already quoted in earlier references to this case (233 U.S., p. 79):

"The decisions also show that a state cannot avoid the operation of this rule by simply invoking the convenient apologetics of the police power. It repeatedly has been said or implied that a direct interference with commerce among the states could not be justified in this way. The state can do nothing which will directly burden or impede the interstate traffic of the company, or impair the usefulness of its facilities for such traffic." (Citing cases.) (Emphasis supplied.)

We call particular attention to the expressions used by the Court in the South Covington and Illinois Central Cases, in the quotations from those opinions which appear in the portion of this brief devoted to the "national field" phase.

In the Illinois Central Case, this Court also said (163 U.S., at page 153):

"The effect of the statute of Illinois, as construed and applied by the Supreme Court of the state, is to require a fast mail train, carrying interstate passengers and the United States mail, from Chicago, in the State of Illinois to places south of the Ohio River over an interstate highway established by authority of Congress, to delay the transportation of such pas-

sengers and mails, by turning aside from the direct interstate route, and running to a station three miles and a half away from a point on that route, and back again to the same point, and thus traveling seven miles which form no part of its course, before proceeding on its way; and to do this for the purpose of discharging and receiving passengers at that station, for the interstate travel to and from which, as is admitted in this case, the railroad company furnishes other and antible accommodation.

"This court is unanimously of opinion that this requirement is an unconstitutional hindrance and obstruction of interstate commerce, and of the passage of the mails of the United States." (Emphasis supplied.)

In he St. Louis and San Francisco Ry. Case, supra, the question was as to the validity of an order of the State Commission, which required the detouring of certain through passenger trains which were interstate in character, the detour being to serve a city of some 4.000 inhabitants which was already adequately served by other trains. This order, of course, could only have been just-tified index the police power; and in holding it invalid because it unduly burdened interstate commerce, the Court said (254 U.S., at p. 537):

"Considering the facts disclosed, we think it plain that the fourteen local passenger trains meet the reasonable requirements of Caruthersville, and that the Commission's order unduly burdens interstate commerce. Compliance with it would require the railway to maintain 16 more miles of track at the high standard essential for the through trains, and to more the

latter 16 miles further, with consequent delay and inconveniences all along the line. The burden certainly would not be less serious than those which were condemned in some, if not all, of the cases above referred to." (Emphasis supplied.)

In other words, the state might require adequate local service but could not lay its regulating hand on through interstate trains as such. Practically all of appellant's main-line trains in Arizona are of that character.

In the La Coste Case, supra, it was said (263 U.Sc. at page 550):

"The commerce clause (art. 1, Sec. 8, clause 3) confers on Congress power to regulate interstate and foreign commerce, and therefore such power is impliedly forbidden to the states. Even their power to lay and collect taxes, comprehensive and necessary as that power is, cannot be exerted in a way which involves a discrimination against such commerce.'

A state may not enforce any law, the necessary effect of which is to prevent, obstruct, or burden interstate commerce.

"This court will determine for itself what is the necessary operation and effect of a state law challenged on the ground that it interferes with or burdens interstate commerce. The name, description, or characterization given it by the legislature or the courts of the state will not necessarily control. Regard must be had to the substance of the measure rather than its form."

In Seaboard Airline R. Co. v. Blackwell, supra (244 U.S. 310), Mas Court, as already noted, invalidated the so-

called Georgia "blow-post" law, which would have required the slowing down of trains at grade crossings, to such an extent as to delay them several hours beyond their normal schedules. The sole ground of the decision was that the regulation imposed a direct and intolerable burden and obstruction upon the free flow of interstate commerce, and the obvious and apparently unquestioned relation of the statute to the public health and safety did not avail to save it.

In Shafer v. Farmers Brain Company (1925), 268 U.S. 189, 69 L.ed. 909, this Court held invalid, under the Commerce Clause, a state statute which undertook to control the purchase and shipment of grain produced in and moving out of the state. The law was defended as an alleged necessary exercise of police power in the interest of the focal producers. But the Court said (at p. 199):

"The decisions of this court respecting the validity of state laws challenged under the commerce clause have established many rules covering various situations. Two of these rules are specially invoked here, one, that a state statute enacted for admissible state purposes, and which affects interstate commerce only incidentally and remotely, is not a probleted state regulation in the sense of that clause; and the other—at a state statute which, by its necessary operation, directly interferes with or burdens such commerce, is a prohibited regulation and invalid, referrings of the purpose with which it was enacted."

(Emphasis supplied.)

In Edwards v. California, supra (314 U.S. 160), this Court set aside the California statute forbidding—the

bringing of indigent persons into the state; again, despite the apparent relation between the law and the public welfare, and solely because of the direct obstruction thus imposed upon the freedom of movement of persons in interstate commerce.

In

Missouri, Kansas & Texas R. Co. v. Texas, supra (245 U.S. 484, 62 L.ed. 419),

this Court reversed a judgment rendered in a suit for populaties brought by the State of Texas, which penalties had been assessed for the violation of an order of the State Railroad Commission requiring

"passenger trains in Texas to start from their point of origin and from stations on the line in accordance with advertised schedule, allowing them not to exceed thirty minutes at origin or points of junction with other lines to make connection with trains on such other lines, and not exceeding ten minutes more if at the end of thirty minutes the connecting trains were, in sight."

The Court said (245 U.S., at page 488):

"Again the question is not what the State Commission might require of a road deriving its powers from the State, with regard to local business (Missouri Pacific Ry. Co. v. Kansas, 216 U.S. 262, 283) but whether the order if applied to this case would not unlawfully interfere with commerce among the States.

On its face the order as applied was an interference with such commerce. It undertook to fix the time allowed the stops in the course of interstate transit.

It was a serious interference, for it made the defendant liable for an interstate train not starting on schedule time, when the train did not come into the defendant's hands, from another company in another state, until too late. This, as we understand the facts, was the train to which the advertised schedule applied, and if so, the mere statement of the result is enough to show that the enden imposed not only was serious but was unwarrant as well as unjust. The suggestion that compliance with the order could have been secured by having an extra train ready to run if the regular one was not on time hardly is practical, and is not an adequate answer, even in form. For the defendant advertised, or at least had the right to advertise, the interstate train, and, if it did so, would not free itself from liability for a delay on the part of that train by offering another. We think it plain that this order was applied in a way that was beyond the power of the Commission and courts of the State. Seaboard Air Line Ry. v. Blackwell, 244 U.S. 310. Chicago, Burlington & Quarty R. R. Co. y. Railroad Commission of Wisconsin, 237 U.S. 220, 226. South Covington & Cincinnati Street Ry. Co. v. Covington, 235 U.S. 537, 548."

In

St. Louis S. W. Ry. Co. v. Arkansas (1910), 217 U.S. 136, 54 L.ed. 698,

Arkansas imposing penalties on the railroad for an alleged fature to furnish cars for loading by a shipper. The state court had held that the railroad was not excused, even though the failure was due solely to its inability to regain its own cars which had been sent from its own line, over

other railroads as required to reach the billed destinations. This Court said (at p. 149):

"Coming to the merits, we think it needs but statement to demonstrate that the ruling of the court below involved necessarily the assertion of power in the State to absolutely forbid the efficacious carrying on of interstate commerce, or, what is equivalent thereto, to cause the right to efficiently conduct such commerce to depend upon the willingness of the company to be subjected to enormous pecuniary penalties as a condition of the exercise of the right."

It will be noted that Conclusion of Law No. IV declares the law to be invalid because of the physical interference. obstruction and delay imposed upon appellant's interstate trains; whereas Conclusion of Law No. V refers to the financial burden imposed upon appellant's operations in Arizona by reason of enforced compliance with the law. Both the physical interference and obstruction, and the financial burden, fall within the prohibition of the principle above set forth; in fact, many of the decisions make no distinction in terms as between a purely physical interference with or obstruction to interstate commerce and the financial burden upon both the words "burden" and "interference having been used either interchangeably or as synonymous. But as the authorities show, whether the burden and interference be due to financial imposition or direct interference and obstruction, they are equally prohibited under the Commerce Clause. To be strictly and technically Acorrect, it is quite conceivable that a state might impose a forbidden burden upon interstate commerce-for example, by a license fee or a tax on gross receipts from interstate

transactions-without interfering with it in the sense of physically hindering or preventing its being carried on between the state and adjoining states, or through the state, provided that the tax or license fee is paid. Compare: Fisher's Bend Station v. Tax Commission (1936), 297 U.S. 650 (655), 80 L.ed. 956. It is likewise conceivable that, as illustrated by the situations in K, C. S. Ry. Co. v. Kaw Valley Drainage Dist., supra (233 U.S. 75), and Scaboard etc. R. Co. v. Blackwell, supra (244 U.S. 310), a direct physical interference or obstruction may take place, though no immediate financial burden is imposed. These considerations may have persuaded the trial court to adopt the conclusions of law in their present form, so as to differentiate between the interference and the burden, treating the one as purely physical and the other as largely financial in character, though there are many cases in which either may be construed as equivalent to the other. distinction is perhaps unimportant, because both are forbidden—the attempted exercise of the state pice power to the contrary notwithstanding.

We think that it may be taken as settled law, therefore, as laid down in the numerous decisions above cited, and in a host of others, including many largely relied upon by appellee at earlier stages of the case (for example, the Alabama Engineers' Case, the Minnesota Rate Cases, the Milk Control Board Case and the Oklahama Train Limit Case), that a state regulation of a matter of even local concern, enacted in the exercise of the police power, even though reasonably claimed to be in the interest of safety, will be set aside as a violation of the Commerce Clause if it materially and substantially regulates, burdens, in-

tenferes with, or obstructs interstate commerce; incidental, remote or indirect effects or burdens being all that are permitted.

The degisions likewise show that the courts have not only the right, but also the duty, in any case in which the validity of a state police power regulation is called into question because of allegedly imposing unlawful burdens, interferences, or obstructions upon interstate commerce. of considering the facts as they are developed in the record, to defermine whether the claimed burden or interference is merely incidental, indirect and nominal, and without substantial effect upon interstate commerce, or is, on the other hand, direct, material and substantial so as to impose practical obstructions, interferences and burdens upon the free flow of commerce and thus to impair the national interests. Necessarily the court must undertake this function; for otherwise the protection now afforded to interstate commerce against widespread local interferences and burdens would be effectively nullified by a perfunctory affirmative declaration adopted, perhaps, by a majority of a local city council or board of supervisors, or even set forth in the mere fiat of an individual state or county official, to whom power had been delegated by local statute or ordinance. Naturally this Court has recognized the right to determine independently, notwithstanding the legislative declaration, as to the extent and character of the alleged burden or interference. Thus, in the recent Milk Control Board Case, upon which appellee has frequently relied, the Court, after stating (306 U.S., at pp. 351-352) the general principles controlling the exercise of the power to regulate interstate commerce by both the

Federal Government and the states, turned to a review of the particular statute the validity of which was in issue.

• It said (at pp. 352-353)

"The purpose of the statute under review obviously is to reach a domestic situation in the interest of the welfare of the producers and consumers of milk in Pennsylvania . . . the question is whether the prescription of prices to be paid producers in the effort to accomplish these ends constitutes a prohibited burden on interstate commerce or an incidental burden which is permissible until superseded by Congressional enactment. That question can be answered only by recighing the nature of the respondent's activities, and the propriety of local regulation of them as disclosed by the record."

The Court then reviewed the facts of record and con-

"These considerations, we think, justify the conclusions that the effect of the law on interstate commerce is incidental and not forbidden by the constitution, in the absence of regulation by Congress." (Emphasis supplied.)

In

La Coste v. Dept. of Conservation, supra,

this Court said, in language already quoted (263 U.S., at p. 550):

"This court will determine for itself what is the necessary operation and effect of a state law challenged on the ground that it interferes with or burdens interstate commerce. The name, description or characterization given it by the legislature of the

courts of the state will not necessarily control. Regard must be had to the substance of the measure rather than its form."

In

Foster-Fountain Packing Co. v. Haydel, supra,

the Court said (278 U.S., at p. 10):

"One challenging the validity of a state enactment on the ground that it is repugnant to the commerce clause is not necessarily bound by the legislative declarations of purpose. It is open to him to show that in their practical operation its provisions directly burden or destroy interstate commerce. Minnesota v. Barber, 136 U.S. 313, 319, 34 L.ed. 455, 457; Brimmer v. Rebman, 138 U.S. 78, 81, 34 L.ed. 862, 863. In determining what is interstate commerce, courts look to practical considerations and the established course of business. Swift & Co. v. United States, 196 U.S. 375, 398, 49 L.ed. 518, 525; Lemke v. Farmers Grain. Co., 258 U.S. 50, 59, 66 Led. 458, 464; Binderup v. Pathe Exch., 263 U.S. 291, 309, 68 L.ed. 308; Shafer v. Farmers Grain Co., 268 U.S. 189, 198, 200, 69 L.ed. 909, 914, 915. Interstate commerce includes more than transportation; it embraces all the component parts of commercial intercourse among states. And a state statute that operates directly to burden any of its essential elements is invalid." (Emphasis supplied.)

The Foster-Fountain Packing Co. Case was cited with apparent approval, in two different footnotes to the opinion in the Barnwell Case (303 U.S., pp. 185-188).

In the Blackwell Case, supra, 244 U.S. 310 (also, 28 noted, cited with apparent approval in the Barnwell Case)

this Court reviewed at length the factual situation revealed by the record, and concluded that the statute involved (which was purely a police-power measure, in the purported interest of safety) had been shown invalid because of the burden imposed upon interstate commerce; as the Court said, in the later Burnwell opinion (303 U.S., at p. 187), it was "an unnecessarily harsh restriction."

In the M. K. T. Ry. Case, supra, the Court likewise reviewed the facts before arriving at its conclusions (245 U.S., at p. 488) that the challenged regulation constituted an undue and improper interference with and burden upon interstate commerce.

In Parker v. Brown, supra (317 U.S. 341) this Court said (pp. 362-363):

"But they (state regulations of "matters of local concern") are to be upheld because upon a consideration of all the relevant facts and circumstances it appears that the matter is one which may appropriately be regulated in the interest of safety, health and well being of local communities, and which, because of its local character and the practical difficulties involved, may never be adequately dealt with by Congress." (Emphasis supplied.)

We cite these cases merely as illustrative; many others to the same effect might be added. It is clear that this court is not prevented from examining the facts of record, as they have been determined and summarized in the findings adopted by the trial court, in order to determine whether actual, immediate and direct burdens, interferences, and obstructions are imposed.

Heretofore appellee has attempted to support its position respecting the function of the Court in this connection, by referring to a portion of the opinion in the Barnwell Case reading as follows (303 U.S., pp. 189-190):

"Congress, in the exercise of its plenary power to regulate interstate commerce, may determine whether the burdens imposed on it by state regulation, otherwise permissible, are too great, and may, by legislation designed to secure uniformity or in other respects to protect the national interest in the commerce, curtail to some extent the state's regulatory power. But that is a legislative, not a judicial function, to be performed in the light of the Congressional judgment of what is appropriate regulation of interstate commerce, and the extent to which, in that field, state power and local interests should be required to yield to the national authority and interest."

In prior discussion in this brief we have called attention to the qualifying phrase "otherwise permissible," used by the Court in referring to those state regulations with respect to which Congress may provide relief when the burden becomes too great. The decisions of this Court, both before and since the Barnwell Case, show that a state regulation of even a "matter of local concern," if it materially and substantially obstructs and interferes with interstate commerce, is not "otherwise permissible," any more than if it were an attempted regulation of a matter of exclusive national concern. In either event, it is wholly for bidden by the Commerce Clause itself, without any necessity for the exercise of the plenary powers of Congress;

it is automatically removed and set aside when the Commerce Clause is duly invoked and applied. The quoted passage therefore means that even when a state regulation is particularly addressed to a matter of local concern, and because affecting interstate commerce only incidentally and indirectly is "otherwise permissible," Congress may still act in the joint field, if convinced that uniformity is desirable or that the national interest will in other respects be promoted, and thereby curtail still further even the limited powers available to the state.

There is nothing in the opinion to indicate that a court may not inquire and determine whether an alleged interference with interstate commerce by a state exceeds in degree what is "otherwise permissible"; on the contrary, the entire opinion shows that there was no intent on the part of this Court to alter, in any way, the well-recognized and uniformly sustained principles of decision which have been announced both before and since the Barnwell Case, and find particular expression in the later decisions in Milk Control Board v. Eisenberg, and Parker v. Brown, supra.

While appellee has at times attempted to question whether there is any direct, substantial and material interference, burden or obstruction, the facts, as revealed by the record and found by the trial court, are wholly against its contention.

The physical interferences and obstructions created by the law, and the direct regulatory effects of the law are covered by several specific findings of the trial court. Finding X(b) (R. 3953-3962) specifies the interference with and

delays to appellant's interstate trains and traffic, which occur both within and without Arizona and consist of (1) interference with and delays to cars and trains at terminals; (2) delays to individual cars, as distinguished from delays to entire trains; and (3) interferences with and delays to trains while on line between terminals; Findring X(c) (R. 3962-3966) sets forth the regulatory effects of the law upon appellant's train operations, showing how the law operates to reduce the average and actual lengths of the trains operated in Arizona and the adjacent affected territory below, the actual and average lengths which would prevail if the law were not in effect, and therefore increases the number of trains, train miles, and locomotive miles necessarily operated to handle the same volume of traffic. Thus in 1938, a year of relatively light traffic, the law compelled the operation of 4,304 more freight trains, producing 638,569 more freight train miles, and 798,424 more locomotive miles than would otherwise have been necessary... Expressed in percentages, 30.8% more freight trains, 33.1% more freight-train miles, and 35.9% more locomotive miles were produced than otherwise would. have been required; and of the additional train miles, 151,789, or 23.6% were produced in New Mexico and Texas, and were solely due to the extra-territorial effects of the law. It is, of course, unquestioned that these delays, interferences and regulatory effects are imposed entirely upon interstate commerce; for, as Finding IV(a) shows, about 93% of all of the revenue freight-ton-miles made in Arizona, and over 95% of all revenue passenger: miles, over the five-year period 1935-1939, were interstate in character; and it is clear that practically every train

affected by the law, including each of the additional trains which the law compels to be operated, is an interstate train.

The financial burdens, expressed both in terms of the expense incurred directly because of appellant's enforced compliance, and as the impairment of usefulness arising because of appellant's inability to use its transportation facilities in Arizona and the adjacent territory as efficiently and economically as would be possible if the law's restrictions were removed, are likewise covered by specific findings.

Finding X(d) (R. 3966-3969) directly sets forth the actual additional expense imposed upon appellant, and which it would save if it did not comply with the law, amounting to \$394,900 per year, based upon the year 1938. All of this expense could be avoided if the law were not complied with. Nearly \$95,000 out of this total is compelled to be incurred outside of Arizona, because of the extraterritorial effect of the law. As already noted, the State Supreme Court concurred, at least inferentially, in the finding that a heavy financial burden of compliance is imposed.

Finding VII, and particularly paragraph (d)(3) of that Finding (R. 3929-3934), shows the extent to which appellant has been unable, because of the restriction, to make efficient and economical use of its Arizona' facilities; particularly, it demonstrates the degree to which such efficiency and economy in Arizona, and upon the Arizona lines, have lagged behind, by contrast with the efficiency and economy obtained on other parts of the system—notably in Nevada and Utah, where long-train operations

under conditions generally quite similar to those in Arizona (apart from the train-limit restriction) have been normally developed and carried on. This Finding thus sets forth both the fact and the extent of the impairment in the use and usefulness of appellant's property and facilities employed in interstate commerce, which is directly caused by, and attributable to, the restrictions of the law.

It seems clear, beyond any possibility of dispute, that these direct, immediate, material and substantial interferences, obstructions and regulations, accompanied by these substantial and continuing burdens, affecting, as they do, every train operated by appellant in Arizona, as well as in the adjacent territory, must be considered as "direct," "immediate," "material," and "substantial," within the meaning of the controlling decisions; they cannot, under any theory, be classed as "indirect," "incidental," or "remote." Clearly, there is a direct, substant tial, and immediate regulation of, interference with, and obstruction to interstate commerce when, in a year of comparatively light traffic, the law compels the operation of approximately one-third more freight trains, train miles and locomotive miles than otherwise would be re quired, and imposes upon that operation the necessity of reconsisting interstate freight and passenger trains at points outside of Arizona, as well as at Yuma, with delay: to both the trains themselves; and the cars which must be left behind or held for consolidation; when it imposes further upon the operation some 16612 additional meets and passes, or about 63% more than otherwise would have been required, each of which meets and passes involves

a delay to at least one train, and possibly to others. Equally, there is clearly a substantial, direct and immediate burden when; in such a year of light traffic, comphance with the law results in the additional and unnecessary expenditure of approximately \$400,000, over and above the expenses which would be incurred if the law were not complied with.

The discussion of this point in the memorandum opinion of the trial court is particularly illuminating. That court said (R. 4048-4049):

"The heavy direct burden cast by the law upon interstate commerce can not be seriously questioned and the impairment of the efficient use of defendant's property is of itself an unlawful taking of that property without due process of law, which is a violation of both the state and Federal constitutions.

"The record here also amply discloses that the law causes real interference with, and delay to, interstate commerce, practically to the extent that Arizona operations create a bottle-neck. Actually ninety-three per cent of the freight traffic and ninety-five of the passenger business of the defendant in Arizona is interstate commerce. Furthermore, the law certainly imposes a great, substantial and wholly unreasonable burden of expense upon this interstate traffic. To hold in this case that interstate commerce was only incidentally or indirectly involved would be less than realistic, for the interference and regulation is substantial continuous, direct and unavoidable, as is pointed out in detail in the findings of fact." (Emphasis as in-the original.)

If there were any possible doubt that the burden, interference and obstruction is substantial, direct, immediate and unavoidable, that doubt is finally set at rest by the findings of the Interstate Commerce Commission in the recitals preceding the ordering paragraphs of its Service Order No. 85, and affirmed by it in its opinion in which it sustained its power to make that order: Ex parte 156, supra, 256 LC.C. 523, 535. In those recitals the Commission said that:

Compliance by railroads subject to the Interstate Commerce Act with such rules, regulations, practices and laws (referring to state train-limit laws) during the present emergency, may result in congestion of tracks and terminals, wasteful use of locomotives and interference with the free flow of traffic necessary in the present emergency . . ; and that such operation (without compliance with train limits) will facilitate the free flow of traffic necessary during the present temergency."

The Commission accordingly ordered carriers subject to the Interstate Commerce Act to operate their trains without regard to such train-limit laws "when necessary for the prompt movement of freight and the clearing or avoidance of congestion."

The suggestion is sometimes made that in a case involving a state regulation in the concurrent field, the court may and should analyze and evaluate the factual showing as to the burdens and obstructions imposed and the benefits claimed, so as to determine, by balancing the one against the other, whether the challenged regulation infringes the reasonable protection of the Commerce Clause. If that course is thought desirable in the present case, the only conclusion that can possibly follow is that the

safety benefits claimed and shown to result from the Train-Limit Law are at best so exceedingly slight as to merit no consideration by contrast with the admittedly heavy, substantial, continuous, and unavoidable burdens and obstructions imposed.

The extensive factual showing of the law's results, from the safety standpoint, presents no actual conflict, being primarily based upon official reports and statistics. It is carefully summarized in the trial court's findings Nos. XI, XII, and XIII (R. 3969-4032), the substance of which is restated, for convenience, in our preceding statement of facts. Without here undertaking to review that evidence at length, there are certain salient features of the safety phase which we emphasize:

- (1) The essential question is not, as appellee has contended at earlier stages of this case, whether a given number of long trains can be operated more or less safely than an equal number of short trains; but whether the entire operation (i.e., the movement of all the traffic which appellant, as a common carrier, must handle into, within and across Arizona) can be accomplished with fewer casualties if appellant is permitted to run trains of all lengths necessary to the handling of that traffic, and thus to meet the transportation requirements effectively, but with as few train units as practicable, rather than being compelled to observe fixed restrictions, and thus to operate many more train units than are needed.
 - (2) Again, the essential question is not whether a compelled short-train operation results in more or fewer

^{*}A discussion of the safety evidence in its relation to the trial court's safety findings is included in Volume II of this brief.

casualties of the particular type heretofore emphasized by appellee (the so-called "slack action" type, which comprises only about 6% of all of the employee casualties which occur in train operation; see Exhibits 262, 266; R. 3300, 3304), as compared to the unrestricted operation; but whether all classes of accidents and casualties incident to railroad operation are reduced or increased by the enforcement of the law's restrictions.

(3) The answers to these two questions need not be sought in hypothesis, speculation or opinion; they are to be found in actual experience with both long (unrestricted) and short (restricted) train operations, as reflected in accident and casualty reports and statistics, covering each and all of the 18 years immediately preceding the date of the trial, and covering not only the Arizona lines, but also other parts of appellant's own-system, as well as the other railroads of the United States.

That experience convincingly shows beyond any possible debate that, from the casualty standpoint, the unrestricted operation carried on with as few train units as practicable results in far less hazard, and a much smaller casualty frequency, whether all classes of accidents and casualties or only restricted groups of casualties be considered, than does the restricted (short train) operation. Even considering the narrow issue of the number and frequency of the slack-action type of casualties, the record of accidents and casualties in Arizona and elsewhere shows that the law has not eliminated this class of accident, or even measurably affected its frequency.

(4) There is no evidence of record which shows, or tends to show, nor even any claim by any of appellee's

witnesses, that any accident or casualty has occurred upon or in connection with a long freight or passenger train as to which it could be reasonably said that the same accident would not have occurred if the train had been within the hmits prescribed by the law, or, if occurring, would have been less severe.

(5) The results, from the casualty standpoint, of appellant's long-train operations in Arizona during March and April, 1940, though not claimed to be conclusive, strongly indicate that long-train operation is less hazardous (and certainly not more hazardous) than short-train operation. There were no accidents or casualties on any of the 62 passenger trains which, during that period, were operated without regard to the law. There was but one casualty occurring on one of the 302 long freight trains operated during that period, which took place when a brakeman fell while dismounting from the caboose of a 91-car train, the caboose being detached at the time and handled alone by the engine. There were, during the period of long passenger train operation, 7 accidents with 7 casualties, all occurring upon trains operated in conformity with the law. There were, during the period of long freight train operations, 6 accidents, with 4 casualties, occurring upon short freight trains.

It follows that the law can not be upheld under the Commerce Clause, because upon consideration of all the relevant facts and circumstances—the nature of the subject matter regulated, the substantial interferences and obstructions to and heavy burdens upon interstate commerce, as against the very dubious safety benefits, and the certainty that many if not all of the hazards incident to train operation are materially increased—it plainly appears that the matter here regulated is not local in character; that there are no practical difficulties preventing adequate treatment by Congress; and—of great importance—that even assuming that the subject matter may be considered "local", there is no scope for this particular regulation, because it substantially impairs the national interest in the uniform regulation of interstate commerce and materially obstructs the free flow of that commerce. The competing demands of the state and national interests, assuming that there is a demand by the state, can be accommodated here only by holding the state law invalid.

This conclusion is strongly supported by the reasoning followed and the results reached by this Court, in *Terminal Railroad Association v. Brotherhood*, supra (318 U.S. 1). The Court there stated (at page 8):

"It (the challenged state regulation) finds its origin in the local climatic conditions and in the hazards created by particular local physical structures, and it has rather obvious relation to the health and safety of local workmen. The record in the case does not afford a sure basis for calculating the costs to commerce resulting from the order against the costs to the safety and health of the workmen which it was intended to minimize, and there is evidence in the case that nearby railroads have seen fit in the absence of legal compulsion to provide cabooses in circumstances substantially similar to those upon which appellant relies to establish absence of state power."

The Train-Limit Law, by contrast, was not apparently inspired by any peculiar local climatic or other condition, and gertainly is not seriously claimed or shown to be necessary as a safety measure on this account. The hazard (of slack action), to which it is alleged to be particularly addressed, plainly is not local to Arizona, nor is there any unusual condition in that state which is claimed to increase that hazard. The relation of the law to local health and safety is not only not "obvious"; to the contrary, it is clearly shown, and specially found, that the law is a source of increased hazard and multiplied casualties: "As a matter of cold fact, it makes these short-train operations more dangerous" (Opinion of trial court, R. 4053). The record here affords a sure and (even to the state court) "satisfactory" basis for computing the cost to commerce resulting from the law, in terms of financial burden; and an equally sure and satisfactory basis of measuring the added cost in terms of the obstructions imposed, and especially the additional and unnecessary hazards created. There are no "costs" to health and safety of workmen" incident to the unrestricted operation which the challenged law measurably reduces, not even the "slack-action" hazard: so that there is nothing by way of tangible benefit against which the added cost to commerce can be placed. The delay, burden, and obstruction are imposed by the law upon commerce as a purchase price of claimed "benefits" which become, upon analysis of the record, actual and positive detriments.

Finally, and as contrasted with the evidence in the Terminal Case, showing a general voluntary adoption by other

nearby railroads of the practice required by the challenged order, there is in the case at bar a complete and uncontradicted showing that long-train operation is the common, standard, and regular practice upon the major railroads throughout the nation, and has been for many years; that the compelled short-train practice has prevailed, during the last fifteen to twenty years, only in Arizona (and for a brief period, since the record closed. in Oklahoma); that the circumstances under which such long train operations are carried on are not essentially different, and certainly no more favorable generally tothe practice, than in Arizona, and-as we again emphasize that there have taken place, side by side with the development and extension of this long-train operating practice, very substantial improvements in the efficiency. speed, economy, and above all, the safety, of railroad operations throughout the nation.

In the light of the trial court's findings, the summary thereof in the trial court's opinion, and the confirmatory conclusions of the Interstate Commerce Commission, we think there can be no doubt as to the applicability in the present case of those principles of decision set forth in this Court's opinions cited above: that is to say, the law must be held invalid as an infringement upon, and a violation of, the Commerce Clause, because even though considered as a possible exercise of the state's police power in the concurrent field, it imposes burdens, obstructions, and interferences which far exceed the mere incidental, indirect, or remote effects permitted to the state, and are instead inevitable, material, direct, substantial, and con-

from even the most partisan standpoint, can be claimed son this record to flow from the law.

4

OF INTERSTATE COMMERCE FULLY OCCUPIED BY CON-

(Assignment of Error No. 5).

We turn now to a discussion of the "occupancy of the-field" issue; i.e., the proposition that the challenged law is invalid because it infringes upon, conflicts with, and attempts to supplement federal legislation having the same or similar purposes, whereby Congress, acting both directly and through its delegated agency, the Interstate Commerce Commission, has fully occupied the field of regulation of the length and consist of interstate railroad trains.

This proposition is set forth at length in Conclusion of Law No. VI of the trial court, the substance of which is as follows (R. 4036-4037):

"To the extent that the Train Limit Law has, or is claimed to have, the effect of limiting the length of a train to the maximum number of cars which can be safely controlled or stopped by the use of the air brakes and appurtenances now employed thereon, or by any other form of train-control or other safety device, said law is void because it enters a legislative field already entered and therefore occupied by Congress, and conflicts with and infringes upon Federal legislation enacted under the Commerce clause: namely, the power-brake provisions of the Safety

Appliance Act (Sees. 1 and 9), and the provisions of Section 25 of Part I of the Interstate Commerce Act, whereby full power was delegated to the Interstate Commerce Commission to investigate and determine the adequacy of air brakes and other forms of traincontrol and safety devices used on interstate railroad trains, and by order to prescribe the form and type of such airbrakes and other devices; which power and authority the Commission has duly exercised."

Although this conclusion was challenged by the state upon its appeal to the state Supreme Court, the point was not separately discussed by the latter in its opinion, except to the extent that it may have done so by its quotation (R. 4064-4066) from the majority opinion in the Oklahoma Case, where the same issue is reviewed at length (36 F. Supp., pp. 614-616). In his dissenting opinion in the court below, however, Judge Ross made clear his view that the law invades the federally occupied field, saying (R. 4070):

"The Train Limit Law, if an allowable state regulation originally, is no longer allowable for the following reasons:

"3. It invades the field of regulation occupied by the Congress in its legislation providing for safety appliances in railroad operations (Virginian Ry. Co. v. United States (1915), 223 Fed. 748) and the safety provisions of the Interstate Commerce Act."

The general principle applicable to this branch of the case may be stated as follows: A state police-power statute which, in the absence of federal legislation touching the subject matter, might possibly be sustained as a law-

ful regulation in the "concurrent field", because addressed to a matter of local concern, and not imposing any material burden upon, or obstruction to, the free flow of interstate commerce, or otherwise impairing the national interest, is immediately set aside when Congress, exercising its delegated power under the Commerce Clause, enacts any legislation which, by direct statement or necessary effect, clearly manifests the congressional intent to cover the subject matter; for the field is thereby occupied, and any existing or future state legislation upon the subject is precluded.

Among the cases which support this principle are:

Oregon-Washington R. & N. Co. v. Washington, supra (270 U.S. 87, 70 L.ed. 482);

Southern Railway Co. v. Reid (1912), 222 U.S. 424 (436), 56 L.ed, 257;

Northern Pacific Railway Co. v. Washington (1912), 222 U.S. 370 (378), 56 Led. 237;

Erie R. Co. v. New York (1914), 233 U.S. 671, 58 Led. 1149;

Missouri Pacific R. Co. v. Stroud (1925), 267 U.S. 404 (407-408), 69 L.ed. 683;

C. R. I. & P. R. Co. v. Elevator Co. (1913), 226 U.S. 426 (435), 57 L.ed. 284;

Napier v. Atlantic Coast Line R. Co. (1926), 272 U.S. 605 (612-613), 71 L.ed. 432; o

Pennsylvania R. Co. v. Public Service Commission (1919), 250 U.S. 566 (569), 63 L.ed. 1142.

The Napier and Pennsylvania Cases are of particular interest, because they hold that when there is a delegation

of power to the Commission with respect to a particular subject matter (the character of the appliances to be used upon railcoad locomotives and equipment in interstate commerce), and even though the Commission may not have exercised the delegated power to the full extent conferred, any state legislation is nevertheless precluded: for "the states can no more supplement the federal requirements than they can annul them."

Our argument upon the "occupancy-of-the-field" point is addressed to and predicated upon a contention advanced by appellee and sustained by the state court: a contention which, moreover, appellee is virtually compelled to make by the very nature of the case and the issues as they arise from the affirmative defense presented by appellant as the original defendant. In its answer appellant attacked the law as having no justification as a purported safety measure, and at the trial it presented voluminous evidence to support that challenge. It was therefore essen. tial to appellee's attempt to sustain the law's validity that it should undertake in the trial court to show, and upon its appeal to the state court to convince that tribunal, that the restrictions upon train operations imposed by the law are necessary in the interest of safety; for it is apparently conceded that if the law cannot be sustained. as a safety measure, it cannot be sustained at all.

By far the greater part of the testimony of appellee's rebuttal witnesses, as well as practically all of its discussion and criticism of appellant's safety evidence, therefore is and has been addressed to its claim and theory that the law is necessary as a safety statute, and particularly to the specific contention that long trains cannot be

operated (i.e., handled, controlled and stopped) in Arizona with as few hazards as short trains.

Two federal statutes are referred to in appellant's answer (par. 12(b) of Part III; R. 26-27), and also in the text of the trial court's Conclusion No. VI, as having constituted the means whereby Congress has entered, and thereby occupied, the field of regulation in which the Train Limit Law attempts to operate: viz., the power-brake provisions (Sections 1 and 9) of the Safety Appliance Act (45 U.S. Code 1, 9), and the Safety Section (Sec. 25) of Part 1 of the Interstate Commerce Act (49 U.S.C., I, 25).

(a) The power brake provisions of the Safety Appliance Acts:

Section 1 of the Safety Appliance Act, enacted March 7, 1893 (27 Stat. 531; Section 1, Title 45, U.S.C.) now reads:

"It shall be unlawful for any common carrier engaged in interstate commerce by railroad to use on its line any locomotive engine in moving interstate traffic not equipped with a power driving-wheel brake and appliances for operating the train-brake system, or to run any train in such traffic after said date that has not a sufficient number of cars in it so equipped with power or train brakes that the engineer on the locomotive drawing such train can control its speed without requiring brakemen to use the common hand brake for that purpose."

Section 9, enacted March 2, 1903 (32 Stat. 943; Sec. 9, Tit. 45, U.S.C.) now reads:

"Whenever, as provided in sections 1-7 of this title, any train is operated with power or train brakes

not less than 50 per centum of the cars in such train shall have their brakes used and operated by the engineer of the locomotive drawing such train; and all power-braked cars in such train which are associated together with said 50 per centum shall have their brakes so used and operated; and, to more fully carry into effect the objects of said sections, the Interstate Commerce Commission may, from time to time, after full hearing, increase the minimum percentage of cars in any train required to be operated with power or train brakes which must have their brakes used and operated as aforesaid; and failure to comply with any such requirement of the said Interstate Commerce Commission shall be subject to the like penalty as failure to comply with any requirement of this section."

While Section 9 thus required at least 50 per cent of the cars in each train to be equipped with power brakes operated by the engineer, it also authorized the Commission, after due hearing, to increase that percentage, Pursuant to that delegation, the Commission has from time to time issued successive orders until the requirement now stands at 85 per cent* (cf. New York Central R. Co. v. U. S. (1924), 265 U.S. 41, 68 L.ed. 892; U. S. v. Panhandle & Santa Fe R. Co. (1938), 21 F. Supp. 919).

Ordered, That on and after September 1, 1910, on all rail roads used in interstate commerce, whenever, as required by the safety appliance act as amended March 2, 1903, any train is operated with power or train brakes, not less than 85 per cent of the cars of such train shall have their brakes used and operated by the engineer of the locomotive drawing such train, and all power-brake cars in every such train which are associated together with the 85 per cent shall have their brakes so used and operated.

Section 6 of the Safety Appliance Act makes it "the duty of the Interstate Commerce Commission to lodge with the proper district attorneys information of any such violations as may come to its knowledge."

Congress also annually makes appropriations to enable the Commission to "keep informed regarding and to enforce compliance with" the Safety Appliance Act.

It will be noted that Section 1 of the Act does not provide in terms that air brakes shall be used for the purpose of controlling trains but, only that such and so much equipment shall be placed on trains that the engineer can control them; but certainly this is the necessary implication, and the federal courts, in construing the Act, have therefore held that Congress intended not only that trains should be equipped with air brakes, but that they should be controlled in a reasonably safe manner by air brakes, and to that end must be made short enough so that they can be so controlled.

The leading Circuit Court of Appeals decision in which this doctrine was announced was:

Virginian Ry. Co. v. United States (1915). 223

^{*}For instance, in 1929 Congress appropriated upwards of \$500,000 "To enable the Interstate Commerce Commission to keep informed regarding and to enforce compliance with Acts to promote the safety of employees and travelers upon railroads; the Act requiring common carriers to make reports of accidents and authorizing investigations thereof; and to enable the Interstate Commerce Commission to investigate and test appliances intended to promote the safety of railway operation, as authorized by the joint resolution approved June 30, 1906 (U. S. C., page 1441, section 35), and the provision of the Sundry Civil Act approved May 27, 1908 (U. S. C., page 1441, sections 36, 37), to investigate, test experimentally, and report on the use and need of any appliances or systems intended to promote the safety of railway operation, inspectors, and for traveling expenses." (45 Stat. 1239.)

The facts in the case were these:

In 1912 it was the common practice of the Virginian Railway to operate coal trains of 100 cars, each carrying approximately 54 tons; those trains exceeded in tonnage, if not in number of cars, the trains in ordinary use on any of the other railroads.

Over a certain section of the track, because of its countries dition, frains were limited by order to speeds of five miles an hour at one point and ten miles an hour at other points. With respect to operation at that rate of speed with air brakes alone, the court said:

"It was found, however, that these very long trains could not be operated safely, at the slow rate of speed required on this grade, when air brakes only were used for their control. This was because air brakes could not be applied with needed effect, if at all, without exerting a pressure which would stop the train, or, if released before the train came to a stand-still, would cause such a jerking and surging of the train as to break the cars apart, and accidents of this kind were of frequent occurrence."

Under those circumstances the company in May, 1912, premulgated an order as to when band brakes only should be used except that:

"The automatic air brakes will be used if it is seen that the hand brakes are not holding properly, to make a quick stop on account of being flagged, or in other cases of emergency."

The following stipulation was introduced in evidence:

"The engines on each of said trains were equipped with a power driving wheel brake, and appliances for operating the train brake system, and all of the cars in each of said trains were equipped with power or train brakes, so that the engineer on each of said engines could control the speed of the trains without requiring brakemen to use a common hand brake for the purpose. All of said cars in each of said trains were also equipped with hand brakes."

The court summed up the facts and stated the question at issue as follows:

"It appears to be conceded by defendant, and the fact is clearly established by the testimony, that · trains of a smaller number of cars could be safely operated on this section of road, even at the slow rate of speed stated, by using only the air brakes. and the locomotive power brake. Just how many cars could be handled without the use of hand brakes is not altogether certain, but apparently there was no difficulty with trains of 50 cars, or even more than that number. In short, the alleged necessity for requiring hand brakes to be used resulted wholly from the extreme length of the trains, coupled with the low rate of speed at which they were moved. Shorter trains could be operated with entire safety, as respects control of speed and otherwise, without the aid of hand brakes.

The situation, then, was this: All the appliances contemplated by the statute were fully provided, were of proper construction, and in good working order. Trains of say 50 cars, probably more, could be safely operated without the aid of hand brakes; but for trains of greater length, certainly for those of 80 to 100 cars, it was necessary, in order to avoid the risk of accident, to make use of hand brakes as provided in the quoted order. Was the use of hand brakes un-

der such circumstances a violation of the Federalstatute?" (Emphasis ours.)

The court then held that the Safety Appliance Acts, when properly construed, required not only that trains be so equipped that they could be controlled by power brakes, but that, except in emergencies, they must be so controlled, and, in order to effectuate such purpose, that only trains short enough to be controlled by air brakes with safety could be operated. This is precisely the field of regulation which, as appellee has asserted, has not been occupied by federal legislation, and the precise purpose for which, as it has plainly contended, the challenged law was enacted.

The essence of the decision is this: that Congress by enacting the Safety Appliance Act has imposed the requirement, not only that air brakes shall be applied upon a definite minimum proportion (now 85 percent) of the cars in a train, but also that they shall so function that the train may be controlled by the engineer; that the operation of a train longer than can be so controlled is farbiddin, under penalty; and that in determining the question of ability to control, the length of the train, its leading, the character of the territory where it is operated, and all other relevant circumstances are to be taken into account.

The Tirginian Case has been cited with approval in several later cases:

New York C. R. Co. v. U. S., supra (265 U.S. 41 (46), 68 Led. 892):

U. S. v. Great Northern Ry. Co. (1916), 229 Fel. 927;

Pennsylvania Co. v. U. S. (1917), .241 Fed. 824 (830);

U. S. v. G. R. & L. R. Co. (1916), 244 Fed. 609 (613) (affirmed, 249 Fed. 650).

In this connection we call attention also to the Interstate Commerce Commission's interlocutory report in:

Investigation of Power Brakes and Appliances (1924), 91 I.C.C. 481,

in which the Commission, after lengthy investigation, including hearings at which testimony was offered by representatives of both the carriers and the train service employees, made certain findings respecting the development, present methods of use and efficiency of existing types of air-brake equipment. This report was introduced in evidence by appellee as Exhibit 385 (R. 2706).

In that proceeding the Commission referred to the first type of power brake developed, the so-called straight airbrake, similar to the present street car air brake, in which the brake was applied when the train line pressure was increased, and released when the train line pressure was reduced; but the brake was wholly inoperative when a train broke in two.

Next came the plain automatic brake, which, according to the Commission, was "placed in Service when trains of 25 or 30 cars were common"; and then the third, or 11 type, was developed "as train lengths increased to 50 cars." The evidence shows that neither of those types is presently used by appellant; but it is obvious that neither could be used on a train containing even seventy

loaded cars, particularly in heavy grade mountain territory, without violating the Safety Appliance Act, because, although such a train undoubtedly could be stopped, it, would be impossible for the engineer to control it in a reasonably safe and proper manner. While the K-type of brake, developed and made standard in 1919, "as train lengths were still further increased to 100 or more cars." undoubtedly can lawfully be used on trains of 100 cars or substantially more, yet there is a limit to the length of the train which can be controlled properly and with a reasonable degree of safety when equipped with that type of brake. Just what that limit would be in any particular case is a question for the federal courts to determine in a prosecution under the act and in the light of the facts developed in such case. Neither state courts nor state legislatures are authorized to pass upon that question.

(b) Section 25 of Part I of the Interstate Commerce Act:

The power brake provisions of the Safety Appliance Acts were the only federal train-control regulations in effect until 1920; they were then supplemented by the addition to the Interstate Commerce Act of Section 26. In 1920 that section provided that the Commission might order any railroad carrier subject to the Interstate Commerce Act to install automatic train-stop or train-control dedevices or other safety devices, in compliance with specifications and requirements prescribed by the Commission. In 1937 the section was amended and greatly amplified. In September, 1940, it was renumbered as Section 25 of Part I of the Interstate Commerce Act (by the passage of the Transportation Act, 1940) but was not otherwise

changed. As amended in 1937, and at present, Section 25 provides in part:

The Commission may, after investigation, if found necessary in the public interest, order any carrier within a time specified in the order, to install the block signal system, interlocking, automatic train stop, train control, and/or cab-signal devices, and/or other similar appliances, methods, and systems intended to promote the safety of railroad operation, which comply with specifications and requirements prescribed by the Commission, upon the whole or any part of its railroad, such order to be issued and published a reasonable time (as determined by the Commission) in advance of the date for its fulfillment:" (Emphasis supplied.)

This section in terms thus authorizes the Commission to prescribe and require automatic train-stop or train-control devices, or other similar appliances, methods and systems intended to promote the safety of railroad operations. Under settled rules of statutory construction the words "other similar appliances, methods, and systems" refer to devices of the same general nature, and performing the same functions as "train-stop," or "train-control," devices. The air brakes themselves are "train-stop," or "train-control devices," and it is only by their application that trains can be controlled and stopped.

In the interlocutory report in the Power Brake Investigation Case, the Commission's opinion begins with the following statement:

"This is a proceeding instituted by us on our own motion under Section 26* of the Interstate Commerce

^{*}Now renumbered as Section 25.

Act, which authorizes us, after investigation, to order the installation of automatic train-stop or train-control devices, or other safety devices, which comply with specifications and requirements prescribed by us, upon the whole or any part of the railroad of any carrier by railroad subject to the act."

The Commission followed this statement by reference to the power brake provisions of the Safety Appliance Act, and to the minimum percentage of cars and trains required to be equipped with power brakes, and then said (91 I.C.C., at page 483):

"As a result of its investigations our Bureau of Safety has reported to us that many serious train accidents, in which have occurred numerous deaths and injuries to persons as well as great damage to property, have been caused by faulty or inadequate power-brake equipment. The reports of our inspectors have indicated a lack of improvement in power-brake conditions commensurate with the requirements of safe and efficient operation.

The situation on the whole demanded a broad general inquiry by us into the subject of the use and operation of power brakes, and, following the receipt of a petition on behalf of the Automatic Straight. Air Brake Company for an investigation under Section 26 of the Interstate Commerce Act, we entered our order in this proceeding on February 20, 1922.

In the report the Commission found that improvements in methods of operation and maintenance of power brakes should be made, and that also the air-brake apparatus should be changed so as to provide for certain additional functions not performed by the apparatus then in use.

The Commission also saggested certain tentative general specifications and requirements for changes in air brakes, but held the case open for the purpose of giving the matter further consideration before prescribing final and complete specifications.

Subsequently investigations and tests were conducted by the American Railway Association; and in 1933 the carriers adopted the specifications of the new type ("AB") brake, meeting the Commission's suggestions (Exhibit 396; R. 3572-3577).

The most recent action dealing with the matter of air brakes, taken by the Commission pursuant to Section 25, occurred on July 29, 1944, and October 19, 1944, when the Commission issued its further general orders in the Power Brake Investigation Case, requiring all interstate railroad carriers to show cause why an order should not be made, prescribing the specifications for the power brakes to be applied to cars used in freight service, and setting a definite time limit within which all cars so used must have the specified air brakes applied.

Pertinent portions of the order of July 29, 1944, are quoted in the accompanying footnote,* and the entire order is re-

[&]quot;It appearing, That on July 18, 1924, the Commission made and filed a report in this proceeding in which there were enumerated certain general requirements which should be met by power brakes for passenger and freight trains, in the interest of increased safety in train operation;

It further appearing, That respondents ... after extended investigation and tests, adopted, on August 16, 1933, specifications and requirements for power brakes, and appliances for their operation in freight service

It is ordered, That all common carriers by railroad subject to section 25 of the Interstate Commerce Act be, . . . eited to show cause, why

⁽¹⁾ Specifications and requirements as set forth in the appen-

that the specifications of air brakes thus proposed to be adopted by the Commission are substantially identical with the "Specifications for Freight Brakes" adopted as above stated by the American Railway Association in 1933; except that the Commission's specifications contain in addition the express statement (which appears twice) that both the service and emergency requirements are based upon brake-pipe pressure of 70 lbs., and train length of 150 cars. This particular phrase does not appear in the Association's specifications (Exhibit 396).

Thus the Commission's latest order not only recognizes the obvious and immediate relationship between air brake requirements and the number of cars in the train, but also definitely contemplates the operation of trains consisting of more than twice as many cars as the Arizona law permits. The record shows that such trains are often operated (Exhibits 44, 81, 100, 117, 118; R. 404, 874-878).

In the meantime, the Commission's order of 1924 with respect to improvement in the methods of operation and in maintenance of air brakes has been complied with; by the installation of heavier graduating springs in triple valves, undesired emergency applications of the brakes

The specifications were slightly modified by the order of October 19, 1944. The appendix sets forth the modified specifications. dix to this order should not be prescribed by the Commission for power brakes and appliances for operating power brake systems, to be applied to cars used in freight service; and

⁽²⁾ If specifications and requirements in substantial conformity with those set forth in the appendix to this order are prescribed by the Commission, an order should not be issued requiring that all cars used in freight service be equipped with power brakes and appliances for operating power brake systems, conforming to such specifications and requirements, on or before January 1, 1946.

(i.e., those not due to action of the engineer or the conductor) were eliminated almost completely. That improved methods of maintenance and operation of air brakes have been placed in effect and observed was recognized and admitted by appellee's principal witnesses (Cooper, R. 2304, 2349-2350; Durnil, R. 2406; Kennedy, R. 2428; Shaw, R. 2653).

The point of our citation of the Commission's opinion and recent order in the Power Brake Case is not that the Commission's findings of fact and observations themselves prove or disprove any claim respecting the operations or other characteristics of air brakes; but the report and order Solutely and conclusively show that the Commission has exercised and is actually exercising its powers under the Safety Appliance Acts, and Section 25 of the Interstate Commerce Act, as to railroad air brake equipment; which necessarily includes, as the Commission has expressly recognized, the lengths of trains controllable by such equipment. Common fairness as well as the requirements of due process have dictated that no order should be entered without a hearing and thorough investigation. But the power to order has been delegated to the Commission by Congress and is being constitutionally exercised. Because of interchange of cars between railroads an order of national effect is indispensable.

It is our position therefore that Congress has directly entered and occupied the entire field—not merely the air brake and safety appliance features—of train-length regulation by enacting the Safety Appliance Act and delegating to the Commission the powers conferred by Section 21.

It is obvious that there must be some limit to the effectiveness of any air brake; much testimony was offered by appellee supporting that view. For illustration, probably no one would contend that the modern air brake, although shown to be fully adequate to control trains of substantially more than 70 cars and indeed of more than double that number, would operate effectively on the 500th car of a 500-car train, under all conditions. What that effective limit is no witness in this case attempted to say, except that certain of appellee's witnesses made rather casual references to 100 cars as constituting a long train requiring greater care in handling. The Commission's recent order shows that the effective limit is believed to be not less than 150 cars.

(c) In determining whether the Train-Limit Law is in conflict with acts of Congress, the entire scheme of the Federal legislation, including not only what Congress did say, but what it did not say, with all other relevant facts and circumstances, must control.

In

Savage v. Jones, supra (225 U.S. 501, 56 L.ed. 1182), this Court, speaking through Mr. Justice Hughes, said (225 U.S., at p. 533):

"When the question is whether a Federal act overrides a state law, the entire scheme of the statute must of course be considered and that which needs must be implied is of no less force than that which is expressed. If the purpose of the act cannot otherwise, be accomplished—if its operation within its chosen field else must be frustrated and its provisions be refused their natural effect—the state law must yield to the regulation of Congress within the sphere of its delegated power." (Emphasis supplied.)

While the rule of statutory construction laid down in that case is peculiarly applicable here, there is not here : presented the question whether the Arizona law has been overridden by Congress. Arizona has never had the power. to determine the number of trains to be run across the state boundary lines, or in New Mexico and California. Insofar as train control is concerned, the original Safety Appliance Act was passed in 1893, and amended in 1903 and 1910, the latest amendment thus preceding the enactment of the challenged law by two years. The addition of Section 26 (now Section 25) to the Interstate Commerce Act, in 1920, and its substantial amendment in 1937, supplemented the pre-existing federal train-control legislation, and reinforced the prior legislation by which Congress had (as the Virginian Case, supra, 223 Fed. 748, makes clear) provided that trains should be limited to safely controllable, lengths.

By the original Safety Appliance Act, and Section 3 of the amendatory act of 1910, the Commission, acting either by itself or in cooperation with the railroads, was authorized to prescribe certain construction details of safety appliances other than power brakes; but Congress did not at that time either itself prescribe, or authorize the Commission to prescribe, the details of construction of power brakes. Such power has, however, apparently been conferred upon the Commission by Section 25 of the Interstate Commerce Act; for that statute now states that the

Commission may require railroad carriers to install automatic train-stop or train-control devices, or other safety devices which comply with specifications and requirements prescribed by the Commission. The Commission, in the Power Brake Investigation, supra, has held that by the section at first enacted it was vested with such power; and now, by its order of July 29, 1944, it has taken direct steps to exercise that power.

But, insofar as the present case is concerned, it is immaterial whether that specific power was conferred upon the Commission; nor is it material that Congress did not go further, and, in addition to providing in the Safety Appliance Act and in Section 25 for the safe control of trains by air brakes, provide also, for train-control purposes, that trains in excess of specified lengths should not be run; that omission does not leave room for the Arizona law to operate in the train-control field.

The situation arising out of the passage of the Train Limit Law, after the enactment by Congress of the Safety Appliance Acts, was similar to that which obtained when Congress by the passage of the Employers' Liability Act merely made railroads liable to their employees for personal injuries caused by negligence, and failed to mention injuries not caused by carriers' negligence. The State of New York, by its Workmen's Compensation law, attempted, to remedy the apparent oversight of Congress. In

N. Y. C. R. R. Co. v. Winfield (1917), 244 U.S. 147, 61 Led. 1045,

which involved the New York statute, this Court stated the contentions of the respective parties and its views as follows (p. 149): "By one side it is said that the act, although regulating the liability or obligation of the carrier and the right of the employee where the injury results in whole or in part from negligence attributable to the carrier, does not cover injuries occurring without such negligence, and therefore leaves that class of injuries to be dealt with by state laws; and by the other side it is said that the act covers both classes of injuries and is exclusive as to both.

In our opinion the latter view is right and the other wrong. Whether and in what circumstances railroad companies engaging in interstate commerce shall be required to compensate their employees in such commerce for injuries sustained therein are matters in which the Nation as a whole is interested and there are weighty considerations why the controlling law should be uniform and not change at every state line." (Emphasis supplied)

Not only did the Federal Employers' Liability Act fail to provide compensation for injuries occurring without negligence, but it also failed to define negligence. In

C. & Q. R. R. Co. v. Stapleton (1929), 279 U.S. 587, 73 Led. 861,

it was contended that by reason of this omission of Congress state legislatures had the right to determine that certain acts or omissions amounted to negligence; but this Court held that Congress, though it had failed to prescribe the acts or omissions constituting negligence, did not intend thereby to permit the states so to do. In so deciding, the Court said (p. 592):

"The exclusive operation of the Federal Employers' Liability Act within the field of rights and duties as

between an interstate commerce common carrier and its employees has been illustrated in opinions of this Court applying that Act by quotations of the words of Mr. Justice Story in Prigg v. Pennsylvania, 16 Pet. 539, 617, used in another association:

'If this be so, then, it would seem upon just principles of construction, that the legislation of Congress. if constitutional, must supersede all state legislation upon the same subject; and by incessary implication prohibit it. For, if Congress have a constitutional power to regulate in a particular subject, and they do actually regulate it in a given manner, and in a certain form, it cannot be that the state legislatures have a right to interfere, and, as it were, by way of complement to the legislation of Congress, to prescribe additional regulations, and what they many deem auxiliary provisions for the same purpose. Insuch a case, the legislation of Congress, in what it does prescribe, manifestly indicates, that it does not intend that there shall be any further legislation to act upon the subject matter. Its silence as to what it does not do is as expressive of what its intention is as the direct provisions made by it." (Emphasis sup plied.)

In this connection, note should also be taken of Pennsylvania R. Co. v. Public Service Commission, supra (250 Y.S. 566), in which an order of the Pennsylvania commission relating to the safety appliances to be used upon end cars of trains was held to be invalid, because it was an attempt to supplement orders made by the Commission pursuant to Section 3 of the Safety Appliance Act of 1910.

There, as here, the Safety Appliance Act was relied on Insofar as it was applicable to the Pennsylvania Case.

provided that certain appliances should be attached to cars to enable employees to get on and off trains with safety; the State of Pennsylvania concluded that another appliance was necessary for the same general purpose, and the real question was whether Congress by the legislation it had enacted and its failure to supplement it intended that it should be exclusive. If it did, then the Pennsylvania law would be void because, as was said by Mr. Justice Holmes, when Congress exercises "its exclusive, powers over interstate commerce so far as to take possession of the field the states no more can supplement its requirements than they can annul them,"

There would seem to be no room for argument that inasmuch as the two federal statutes referred to were clearly passed for the purpose of regulating interstate train operations in the interest of safety, the Train Limit Law, if claimed to be sustainable upon the ground that it is likewise a regulation of train operation in the interest of safety, must be held invalid because of this clear conflict in purpose and effect; for of course it is incompetent, as the cited cases plainly hold, for a state to attempt either tosupplement federal statutes having a similar purpose and effect, or to attempt to annul or override them. In the lower. scourts appellee attempted to avoid this conflict, by arguing that the Train Limit Law regulates a different phase of train operation than the federal acts, and with somewhat different motives or considerations in mind. That is to say, appellee sought to place the state and federal acts in separate compartments in the same field of regulation, by (1) denying that the federal acts have anything to do with train limits, or amount to anything except requirements respecting the appliances to be placed in and used upon trains; (2) attempting to draw a distinction between the regulation of train lengths for the sake of the control of train speed (asserted by appellee to be the purpose of the Safety Appliance Act), and similar regulation for the sake of control of the slack action (the asserted purpose of the Train Limit Law); and (3) contending that in-practical experience over the past thirty years, the Train Limit Law and the Safety Appliance Act have operated wholly without any conflict.

In order to understand precisely what is meant by the terms "slack" and "slack action," as used in this discussion, reference may be had to the trial court's findings. We call particular attention to paragraphs (a), (b), (c) and (d) of Finding XI (R. 3969-3973). Paragraphs (a) and (b) describe the manner in which cars in trains are coupled together, referring to the couplers and draft gears which connect the cars and the amount of play or free motion, as well as controlled motion, or "controlled resistance," which is built into draft gears and couplers, and is necessary for purposes of train operation "Slack" and "slack action" are then defined in paragraph (c): "slack" as:

"The amount of the movement, including both the free motion at the coupler faces and the controlled resistance in the draft-gears, which may take place between the coupled cars of a moving train;"

and "slack action" as:

"The accumulated effect of such motion, as it may be created or brought into play as the result of train operations."

It is also stated, in the finding, that slack and slack action exist and occur in trains of all lengths.

No exception was taken by appellee, in the lower court, nor any error assigned, in connection with paragraphs (a), (b) or (c) of Finding XI; and a large portion of paragraph (d) was likewise not challenged.

(d) Analysis of the evidence showing appellee's position respecting the dangers intended to be eliminated by the challenged law:

In the course of appellee's case on rebuttal, it called as witnesses three locomotive engineers in appellant's employ, and one employed by the Santa Fe: Witnesses Kennedy, Cheek, Stevenson and Cooper.

These witnesses gave lengthy, testimony, in answer to questions by appellee's counsel, with regard to the details of the air brakes and their appliances in use on freight and passenger trains; and particularly testified as to the ability of engineers to control their trains while in operation, and to stop them, with the use of the air brakes. Counsel notably and repeatedly asked these witnesses whether the engineer's ability to control and stop his train was affected by the train's length; in each case receiving an affirmative answer.

Thus, Mr. Cooper, after giving detailed testimony as to the air-brake system and air-brake appliances (R. 2292-2310), said (R. 2314) that ability to control the slack in the train was dependent solely upon the ability to apply and release the brakes throughout the train; and that his ability to start and stop a train was affected by the length, particularly comparing a 70-car train with the train of 100 cars (R. 2338-2339).

The witness was then asked by counsel (R. 2341):

"Mr. Strouss: As the length of the train increases, what, if any, effect does it have upon your ability to safely control the slack in the train?

A. You increase the length of the train and you increase the slack of the train, because every car added adds just that much more to it, and quite naturally, if you have a long train you have more slack than you have in a shorter train, and it is more difficult to control because there is more of it."

The testimony of Messrs. Kennedy and Stevenson, though much briefer, was along similar lines; both witnesses replying, when asked as to the effect of train length upon their ability to control and stop their trains, that the longer the train, the slower the brakes apply, and the less they apply on the rear, so that controlling and stopping a long train of 100 cars takes a longer time and a greater distance (R. 2423, 2425, 2456, 2461).

This same subject matter is dealt with in Finding XIII (e) of the trial court (R. 4030-4032), in which the testimony of these witnesses is briefly analyzed; we ask the Court to refer to that finding. We may emphasize, in passing, that neither Messrs. Cooper, Kennedy, nor Stevenson, nor any other witness called by appellee, was willing to admit that he was not able to control adequately and without accident any and every train which he had been or might be called upon to handle; that the engineers employed by appellant (called by appellee) also agreed that the controlling of long trains required only greater care, but did not involve any greater difficulty; their testimony

in this respect being strongly confirmed by appellant's engineer witnesses.

Appellee is thus committed, by the careful phrasing of its counsel's repeated questions, and the testimony of its witnesses, to the proposition that trains exceeding the lengths fixed by the law cannot be safely operated and controlled with the present types of air brakes; that the essential safety purpose of the law is to limit trains to lengths which with the present types of air brakes can be properly handled and safely controlled.

In the concluding portion of its argument to the court below upon this phase of the case, appeller attempted to ascribe to the law the narrow purpose of limiting the amount of the slack in the train to that maximum quantity beyond which the care required for control of such slack, and the hazards from the slack action, are too great to be permitted. This argument not only does not accord adequate recognition to appeller's evidentiary showing; it is also at variance with the arguments advanced in its opening brief to that court (pp. 408-409, 415, 418-419), under the topic Air Brakes and Their Operation, where it discussed certain portions of the testimony. Thus, in that brief appeller asserted (at p. 408):

train operation is, by increasing with each car the length of the brake pipe . . . to increase the delay in the application or release of the brakes on the rear end and the probability that some brakes on the rear will be partially or wholly inoperative." (Emphasis and omissions supplied by appellant.)

Appellee also quoted in that brief (p. 415) from the Southern Pacific Air Brake Manual, introduced by appellee as its Exhibit 319, as follows:

"Smooth train handling depends upon the ability to control the slack and how to prevent it from running in or out harshly. The heavier the engine and the longer the train the greater is the care required." (Emphasis and omissions as in appeller's quotation.)

Appellee further contended in the same brief (p. 415):

"In mountain or grade operations typical of the Southern Pacific operation in Arizona, where frequent applications of the brakes are required to control the train as the length of the train increases, it becomes more difficult to release and to apply the brakes, especially where loads are handled."

At page 419 of the same brief, and as if to show that the Train Limit Law is necessary to supplement the safety purposes and results of compliance with the provisions of the Safety Appliance Act, appellee said:

A greater distance will be required to stop a long train than a short train, although the brake system complies with all the requirements of the Safety appliance Act. The longer the train the greater the time required for the reduction wave to reach the rear cars

and the longer the delay in the application of the brakes on the rear cars. In other words, the longer the train the longer the delay in the full application of the braking power of the train. The result will be an increase in the time and distance required to stop the train." (Emphasis as in the original.)

In concluding the discussion in that brief of air brakes and their operations, appellee added this illuminating revelation of its true position (p. 420):

"In this aspect of its safety purpose the Train Limit Law recognizes that all the foregoing is true, and gardless of the type of brake in use." (Emphasis as in the original.)

It is noteworthy that appellee did not, either in this discussion or elsewhere specifically deny that its essential contention was and has been precisely as we have stated it: that the law undertakes, in the purported interest of safety, to limit trains to the lengths which, with the present types of air brakes and their appurtenances, can be properly and safely handled and controlled.

(e) There is no distinction in purpose or result between the federal statutes and the challenged state law.

The attempted distinction in purpose and result, as between the federal statutes and the Train Limit Law, is wholly imaginary and non-existent. In the first place, the federal statutes not only require that safety appliances be placed on the ears and locomotives, but also that they be serviceable; that they control not only the speed of trains, but also that they control their operation safely. The essence of the Virginian Ry. Co. decision was that

with the appliances then (1912) available, and in the circumstances prevailing upon that railroad, the longer (80 to 100 cars) and heavier trains could not be safely operated and controlled, with the use of air brakes only; hence operation of these longer trains was a violation of the Safety Appliance Act, and subject to penalty. The act was definitely construed to require that trains must be short enough to be safely controlled by the engineer by means of the air brakes.

and the potential slack action in the train. Slack is admittedly present in the train at all times, and is essential to train operation (R. 1673, 2446). Proper control of the slack is necessary for safety, according to appellee and its witnesses although (so appellee has asserted) frequently unobtainable because of the inadequacy of the present types of air brakes (R. 2314, 2423). Safe control of the train operation therefore imports safe and adequate control of the slack action; and the Safety Appliance Act, as interpreted in the Virginian Case, since it requires such safe control and forbids the operation of trains which are so long as to prevent such control, thereby equally requires trains to be so limited that the slack action may also be adequately controlled.

There is no such difference between control of speed and control of slack action as appellee has endeavored to present. Slack action is created by the motion of the train, and occurs only as result of sudden changes of speed (Ex. 319, p. 8; R. 2429, 2796); its strength and severity, and particularly the consequences when it occurs, are

largely dependent upon the speed at the time of the occurrence (R. 2415, 2429). An engineer of ordinary experience, by proper use of the throttle and the brakes, is able to and does control the speed and thus the slack and slack action in the train (R. 2434-2435, 2787-2799, 2815-2817). We do not say that speed and slack action are identical, for of course they are not. But control of speed and control of slack action involve substantially the same factors; because slack action is so closely related to train speed, and so largely determined by the speed, both as to occurrence and result, that proper and safe control of the train speed necessarily results in large measure in a similar degree of control of the slack action.

The Safety Appliance Act as construed in the Virginian Case, supra, is a true, practical, and logical train-limit law, because it permits the operation of as many cars in the train as can be safely controlled, having in mind the loading of the cars, the physical characteristics of the territory over which the train operates, and the functioning of the brakes, and only forbids the operation of a greater number. Its effectiveness as an actual regulation of appellant's train operations in Arizona is greatly diminished by the Train Limit Law because the latter names a fixed limit which cannot be exceeded, no matter what may be the conditions affecting the safe control of the train.

It follows that the two laws have not operated, and do not operate, without conflict. The state law imposes a fixed limit which has been demonstrated, not only by experience in all of the other states of the United States, but also by appellant's own long-train operations in March

and April, 1940, to be substantially less than would be and is imposed, under the conditions prevailing in Arizona, by the federal statute. Specifically, and as stated in Finding No. IX(a) of the trial court (R. 3947), appellant operated 302 long freight trains and 62 long passenger trains over its Arizona lines, during March and April, 1940. There was not only no testimony that any of these long freight trains was not properly controlled at all times; there was in fact positive testimony, from at least two of the engineers who handled some of these trains. that no particular difficulty of control was experienced (R. 2435, 2815). There was no reportable accident or casualty occurring upon any of these long trains, which could be ascribed to a lack of control, or to ineffectiveness of the air brakes, or to any other condition alleged by appellee to be associated with long-train operation.

All these trains were therefore lawful under the federal act, but forbidden by the state statute. We repeat that the conflict between the two statutes is obvious and intevitable.

Appellant's witnesses Fifield and Menzies, who are locomotive engineers of long experience in both train handling and the observation and supervision of other engineers, showed by their testimony that appellant's engineers, in both Arizona (in the 1940 long-train operations) and else, where on the system, and notably in Nevada, have not difficulties in handling freight and passenger trains of all lengths, including those much longer than 70 or 14 cars, and in controlling and stopping them, by the use of the present types of air brakes (R. 2787, 2797, 2801, 2806, 2816-2817).

The conclusions to be drawn from this testimony are fully confirmed by the findings of the Interstate Commerce Commission in connection with Service Order No. S5. In the recitals accompanying that order the Commission declared that "railroad freight trains exceeding cars in length, and railroad passenger cars exceeding 14 or 16 cars in length, may be operated in accordance with safety standards now applicable, during the present emergency, in and through such (train limit) states"; and in its opinion, in which it sustained the validity of Service Order No. 85 (In re Service Order 85, supra, 256 LC.C. 523) the Commission again said (at p. 536):

"The fact that freight trains in excess of 70 cars and passenger trains in excess of 14 cars are safely operated in other states is convincing evidence of its safety, except where unusual operating conditions exist."

There is no showing that unusual operating conditions exist on appellant's lines in Arizona; on the contrary, the conditions are demonstrated by the record to be more favorable than in many other states where long-train operation is the common standard practice.

But this discussion is not, in our view, all that is to be said upon this branch of the case. The fact is that appellee attempted to lay the foundation for a claim that one of the objects of the law is to confine trains to the lengths which can be efficiently handled by a type of air brake that has been and is being successfully used in the actual handling of long trains. Thus the state is undertaking

to accomplish by indirection what it cannot do by direct legislation; that is, to limit the lengths of trains to 70 or 14 cars, on the theory that the modern air brake will not safely control trains of greater lengths.

To illustrate: Under the Safety Appliance Acts, the Interstate Commerce Commission has required certain types of end and side ladders on box cars; two end ladders and two side ladders to each car. The state can no more supplement that regulation than it can annul it: if the state passed a law requiring four end ladders and four side ladders, even of the same type as that prescribed by the Interstate Commerce Commission, the law would unquestionably be invalid under the Commerce Clause and the Federal Safety Appliance Acts: But it, could be attacked by a railroad affected by it on two grounds: first, under the Fourteenth Amendment, on the ground of unreasonableness; and, second, under the Commerce Clause, on the ground of attempted entry into a completely occupied field. If the state in such a suit proved by clear and cogent evidence that the additional side ladders were necessary and, therefore, that the statute was reasonable, that proof would have no bearing whatever on the ground of attack based on the Comme Clause; even if the court should find that the additional ladders were reasonable, the law, nevertheless, would be void under the Commerce Clause point. On the other hand, if in such a case the court should find, under the Vourteenth Amendment point, that the requirement of additional ladders was unreasonable and arbitrary, that would not deprive the complaining railroad of the right to have a finding in its favor on the Commerce Clause point.

. That situation is exactly comparable with the situation here. On the issue of reasonableness, based on the Due Process Clause, appellee has tried to show that the statute is reasonably necessary, because it limits the length of trains to a length that can be properly and successfully handled with the modern air brakes. The inefficiency of the air brake is claimed to be the controlling reason for the law: the grayamen of the state's indictment of long train operation. That claim and the consequent conflict with federal statutes are not evident on the face of the challenged law; therefore, appellant was not bound to anticipate the claim in its case in chief; but it was completely overcome in rebuttal. But the absence of proof of the claim does not deprive appellant of the right to have a final decision on the Commerce Clause point, that the said statute is in conflict with and amounts to an unlawful attempt to supplement the power-brake provision of the Federal Safety Appliance and Interstate Commerce Acts, by which statutes Congress has completely and exclusively occupied the field of regulation of train lengths

To illustrate further: The evidence warrants the conclusion that the modern air brake would not be sufficient to control a train of a consist of say 500 cars. If such a train were made up in a terminal yard, and ran on a trip along the road, undoubtedly a federal prosecution would lie under the Safety Appliance Act, for operation of a train not equipped with adequate brakes; and it would be no defense

to assert that no brakes had yet been or from present knowledge, are likely to be invented which will effectively control a train of 500 cars. The offense would consist in running a train that could not be safely and properly controlled by the air brakes. Such was precisely the basis of the prosecution and final decision in the Virginian Case. supra, 223 Fed. 748. What Arizona has plainly tried todo, by the Train Limit Law, is to substitute its judgment for that of a federal court or a federal jury, under proper instructions, in a prosecution for violation of the Safety Appliance Act, as to the length of a train that may be properly controlled by the modern air brake; and that attempted substitution is nothing less than a direct entry into a field of federal regulation which has already been entered and occupied by Congress, to the extent that the state cannot even supplement the regulation.

Moreover, if appellee should claim that it has proven that a long train cannot be safely controlled by the modern air brake and that the statute is a proper police regulation to limit trains to lengths that can be safely controlled by that means, then the law is brought even more completely within the "occupied field" doetrine, because it will have been not only alleged but clearly shown—according to appellee's assumed claim—that the state has stepped in and legislated, for the specific purpose of supplementing of adding to the congressional acts, and the regulations made, pursuant thereto.

Appellee is thus brought to a completely untenable position. It must either claim that the law is necessary as a safety measure, or admit that it is not a safety regulation.

If it takes the latter course, it necessarily admits that the law is unreasonable and arbitrary; for as previously stated if the law cannot be sustained as a cafety measure, it cannot be sustained at all. Necessarily, therefore, appellee claims that the law is a justified and necessary safety measure, which achieves that object by forbidding the dangerous operation inherent in running long trains; the prohibited long-train operation being assertedly more dangerous than the permitted short-train operation because the long train contains so much more slack that when in motion the slack action cannot be safely controlled. This result is said to be due to the fact that the brakes, although of the same type as on a short train, do not function as well on the long train, so that the: control is incomplete and insufficient. The argument thus reduces to the contention that the law promotes safety by limiting trains to the lengths which can be safely controlled, handled, and stopped with the types of air brakes in use, and for that purpose forbids the operation of the longer, allegedly unsafe, trains. This contention, when fairly analyzed, thus brings the law into the occupied field, and squarely into conflict with the federal statutes and the regulations made by the Commission thereunder, because the latter have precisely the same purposes and are addressed to the same subject matter.

Whichever position appellee may choose, that choice is equivalent to a confession of the law's invalidity: either because it is not a safety measure, and has no relation to that purpose, or because, as a regulation of interstate commerce, it conflicts with and infringes upon federal

statutes having identical purposes and operating in the same field.

In prior argument upon this issue appellee has relied particularly upon:

Kelly & Washingtong supra (302 U.S. 1, 82 Led. 3).

As pointed out in our earlier discussion of this case, this Court held that there was no inconsistency between the federal acts regulating shipping on navigable waters and the state law under attack (so far as it applied to the craft involved in the case), because Congress had been eareful to delimit its exercise of jurisdiction, and though regulating steam vessels, and seagoing motor-driven vessels of 300 tons or more; had not regulated but had exempted the smaller motor-driven craft. The state law therefore touched that which the federal laws and regulations had clearly and with apparent intention left untouched.

But the decision presents no analogy to the instantcase. Here the Congress, and the Commission is its agency, have regulated the air brakes (the only means of controlling trains) as well as other safety appliances, for all rolling equipment (cars and locomotives) used by team ailroads, and for all trains in which they are run: not merely of a certain size or length, or used in a particular service, but of all sizes, length; and classes, and in all kinds of service. It is inconceivable that there should now be any remnant of authority left in the state which would permit it to regulate, even in directly, in the field of train handling and control by means of the air brakes. Safety appliances do not wind of a dual or concurrent jurisdiction (Napier v. Atlantic Coast Line R. Co., supra, 272 U.S. 605); and in safety appliance matters the state "can no more supplement" the federal provisions "than it can annul them" (Pennsulvania R. Co. v. Public Service Commission, supra, 250 U.S. 566)

The exclusive character of federal safety appliance acts is shown by the holding in:

Gilcary v. Cuyahoga Valley R. Co. (1934), 292 U.S. 57 (60), 78 L.ed. 1123:

"The Safety Apphance Acts govern common carriers by railroad engaged in interstate commerce. The Act of 1893 applied only to vehicles used by them in moving interstate traffic. 45 U. S. C. Sec. 2. Its requirements were by the Act of 1903 extended to all their vehicles. Id., Sec. 8. Southern Ry. Co. v. United States, 222 U.S. 20, 26. Moore v. Chesapeake & Ohio Ry. Co., 291 U.S. 205, 213. So far as the safety: equipment of such vehicles is concerned, these Acts operate to exclude state regulation whether consistent, complementary, additional or otherwise. Prigg v. Pennsylvania, 16 Pet. 539, 617. Southern Ry. Co. v. Railroad Comm'n, 236 U.S. 439, 446, Internat. Shoe Co. v. Pinkus, 278 U.S. 261, 265. The imposition of penalties (id., Sec. 6) and abrogation of assumption of risk (id., Sec. 7) are measures for enforcement." thaphasis ours.)

The Georgia Electric Headlight Case, supra (234 U.S. 280), previously cited by appellee in this same connection, is likewise of little assistance to its argument. In that case this Court, after referring to the Safety Appliance Acts,

the Boiler Inspection Act, the Accident Reports Act, and certain related statutes, said (234 U.S., at p. 293):

"But it is manifest that none of these acts provides regulations for locomotive headlights. ... It does not appear, however, either that Congress has acted or that the Commission under the authority of Congress has established any regulation so far as headlights are concerned. As to these, the situation has not been altered by any assertion of Federal power and the case stands as it has always stood without regulation unless it be supplied by local authority."

Clearly that language does not apply to the situation presented in the present case. Here it is manifest that Congress has provided, both directly and through the agency of the Commission, regulations for air brakes to be used on cars and trains of interstate carriers, requiring them to be of such character, number and effectiveness that trains may be adequately controlled and stopped by. their use; and, as specifically held in the Virginian Case, supra, has forbidden under penalty the operation of a train longer than can be safely controlled and stopped with the air brakes. The very essence of appellee's evidentiary showing is, however, an attempt to prove that the present air brakes do not adequately control long trains, and thereby to support the claim that a rational basis for the law is afforded. It is plain that the law, if construed as or claimed to be necessary for that reason; is nothing but an attempt by the state to supplement or replace the federal regulations. The situation is such that the federal power has been directly exerted to compel the provision and use of adequate brakes and other safety

devices on appellant's cars and trains, and no need or place exists for regulation by local authority. This legislation, by which Arizona attempts to shorten the lengths of trains so that the type of air brakes approved by the Interstate Commerce Commission under its broad powers may effectively operate is certainly, and in the instant case is obviously claimed to be "complementary" or "additional" to the Safety Appliance Acts, Section 25 of the Interstate Commerce Act, and the Commission's regulations thereunder; and such was the explicit holding in the First Arizona and Nevada Cases, where the same claims were made as are indicated here.

The Supreme Court's latest decision in the Arkansas Full-Crew Cases:

Missouri Pacific R. Co. v. Norwood (1933), 290 U.S. 600, 78 L.ed. 527,

offers no comfort to appellee. The railroad in that case did not rely upon the Safety Appliance Act, as supplemented by Section 25 of the Interstate Commerce Act. Such statutes could not have had any possible relevancy in that case. The decision therefore did not pass upon our specific point that the Commission was directly given power to regulate air brakes, regardless of state laws to the contrary. The decision upon the issue of conflict between the state law and federal statutes is summed up in the concluding expression by the Court in the earlier decision of the same case (283 U.S. 249, 258):

"We think it very clear that Congress has not prescribed or empowered the Commission to fix the number of men to be employed in train or switching crews." Appellee has also referred, in prior argument upon this issue, to:

Missouri, Kansas & Texas Ry. Co. v. Haber (1898), 169 U.S. 613, 42 L.ed. 878;

Welch Co. v. New Hampshire (1939), 306 U.S. 79, 83 L.ed. 500;

Maurer v. Hamilton, supra (309 U.S. 598, 84 L.ed. 969)

. The Haber Case was cited by appellee, jointly with the Kelly Case, supra, to the point that a state police-power statute is not to be regarded as set aside by an act of .Congress, unless the repugnance or conflict between the two statutes is so direct and positive that they cannot be reconciled or consistently stand together. It is apparent. that that principle cannot be invoked in the present case to save the challenged law. As we have shown, there is a direct and positive conflict between the Safety Appliance Act and Section 25 of the Interstate Commerce Act, on the one hand, and the Train Limit Law on the other; for the Train Limit Law undertakes to forbid, in Arizona, an operation which the other laws, addressed to the same subject matter, permit. That is to say, the Safety Appliance Act, though forbidding the operation of any train which is so flong or so heavy that it cannot be safely controlled, handled and stopped; imposes no fixed limit, but permits all of the relevant conditions, such as grade, weight and loading of cars, and the like to be taken into consideration; whereas the Train Limit Law imposes fixed and arbitrary limits, regardless of these conditions and regardless of the fact that experience has demonstrated

that longer trains can be and are safely and effectively operated, handled, controlled, and stopped.

The Welch and Maurer Cases were referred to apparently because of the expressions in those opinions to the effect that the congressional intention to displace local laws relating to health or safety is not in general to be inferred, unless clearly indicated. Obviously, this principle has no application here, because the Safety Appliance Act was passed initially more than nineteen years before the enactment of the Train Limit Law; even the 1910 amendment preceded the Law by two years. Thus, instead of the federal act having superseded or displaced the state law, the latter has invaded a field already occupied by Congress.

The "occupied-field issue" was also presented in the First Arizona Case, and was discussed in the following language in that opinion (2 F. Supp., pp. 860-861):

"The defense of these suits is based on the contention that Congress has passed to Act dealing with the subject of train lengths; that the Boiler Inspection Act, the Power Brake Provision of the Safety Appliance Act and Section 26 of the Interstate Commerce Act, do not cover certain dangers and hazards of train operations and, until Congress deals specifically with those subjects the states are free to adopt such reasonable regulations—in the exercise of its police power.

We cannot agree to this proposition: . .

"Sections 22 and 34, inclusive, Title-45 USCA, are what are known as the Boiler Inspection Act. This Act requires that every locomotive, its boiler, tender,

and all parts and appurtenances thereof must be inspected, as provided in the Act. Section 1 of the same Title makes it unlawful for any common carrier engaged in interstate commerce by railroad to use on its line any locomotive engine not equipped with power driving-wheel brakes and appliances for operating the train-brake system. Section 2 provides that it shall be unlawful for a common carrier by railroad to haul or permit to be hauled or used on its line any car not equipped with automatic couplers which can be uncoupled without the necessity of men going between the ends of cars. Section 4 requires each ear to be equipped with secure grab irons or handholds in the ends and sides of each car for greater security to men in coupling and uncoupling Section 5 prohibits the use of freight cars which do not comply with the prescribed standard as to height of drawbars. Section 11 makes it unlawful for a common carrier to permit to be hauled or used on its line any car not equipped with secure sill steps and efficient hand brakes, ladders and running boards. Section 12 provides that all these appliances shall remain as standard equipment to be used on all cars unless changed by order of the Interstate Commerce Commission. Section 17 makes it unlawful for the carrier to operate a locomotive not equipped with an ash pan which can be dumped without the necessity of any employee going under the locomotive. Section 26 of Title 49 provides that the Commission may order a carrier by railroad to install automatic train-stop or train-control devices, or other safety devices, which comply with specifications and requirements prescribed by the Commission, upon the whole or any part of its railroad. All of these acts deal with the subject of safety in the operation of railroad trains in interstate commerce.

It will seem from this that Congress has dealt quite extensively with the subject of safety of interstate train operation. The fact that it has not dealt specifically with each element or factor is immaterial, as the Commission, under power conferred by Congress, is fully authorized to prescribe rules and regulations affecting the subject of train operation."

The court then cited this Court's decision in

Napier v. Atlantic Coast Line R. Co., supra (272
U.S. 605),

and continued:

"From the foregoing, we conclude that Congress has occupied the field of legislation involved, and has granted to the Interstate Commerce Commission full power and authority to deal with the subject, and that legislation by the states is thereby superseded." (Emphasis supplied)

The following discussion of the issue, in the Memorandum Opinion of the trial court in this case, likewise merits the attention of this Court (R. 4047-4048):

"There is a second so-called 'joint' field of regulation, relating to those matters which require diversity of treatment according to local conditions, where the states may act within their respective jurisdictions, unless and until Congress sees fit to exercise its paramount authority. But even if the law in question were found not to fall in the 'exclusive Federal field,' but rather in the 'joint field' of regulation, still the law must be stricken down for the reason that in my opinion Congress has, by the enactment of the Safety Appliance Act. Boiler inspection Act, etc., coupled with the broad powers delegated to the Inter-

state Commerce Commission, fully 'occupied' this joint, field of regulation. This would automatically oust the State of any power to supplement or expand such regulations any more than it could annul or amend them. Clearly if the law is necessary as a safety measure because 'long trains' cannot be properly controlled and stopped with the present types of air brakes, then it gets over into a field already occupied by the Congress through the passage of the safety acts above referred to. Engineer Thrace Cooper of the Santa Fe System called by the State testified: 'Your ability to control slack in a train rests solely on your ability to apply and felease the brakes throughout the train.' (Emphasis supplied.)

We submit that this Court should hold and conclude that Congress, acting both directly, and through the medium of orders issued by the Interstate Commerce Commission as the congressional agency, has undertaken to regulate train lengths in the interest of safety, by limiting interstate trains to the maximum number of cars capable of being safely handled, controlled and stopped with the use of the air brakes and other safety devices required by such federal statutes and orders, and has thus completely occupied the field in which the challenged state law operates; so that the latter, which regulates the same subject matter, and by its requirements conflicts with and attempts to modify or supplement the federal regulations, is wholly invalid.

5.

THE TRAIN LIMIT LAW OPERATES ARBITRARILY AND UN-REASONABLY TO DEPRIVE APPELLANT OF ITS PROPERTY WITHOUT DUE PROCESS OF LAW.

(Assignment of Error No. 6)

The fifth major issue of this case, as presented by appellant's affirmative defense (Answer, Part III, pars. 5 and 11, in particular; R. 19-22, 25) and the evidence of both parties, is whether the challenged law is a reasonable exercise of the state's police power in the interest of safety. Appellant contends that the law not only fails to promote safety but actually and substantially increases hazards, so that, taking into consideration the concededly heavy burden of compliance and the arbitrary nature of the regulation itself, it is unreasonable and without rational basis, and thus in violation of the due-process guarantee of the XIV Amendment, as well as the Commerce Clause.

This point was covered at length and in detail in appellant's evidence. There was both an ample and wholly uncontradicted showing of the heavy burden and direct obstruction and interference cast upon appellant by the law, and also an exhaustive treatment of the safety issue. The state likewise dealt with the safety issue, devoting practically all of its comparatively limited counter-showing to that point. Since the statistical portion of the state's evidence was predicated upon reports made by or to the Interstate Commerce Commission, or the Arizona Corporation Commission, to that extent it duplicated certain portions of appellant's testimony, and thus served to confirm the conclusions to be drawn therefrom. There is practically no factual conflict in the testimony of the parties on the safety

point; they differ principally in the conclusions they seek to draw.

The "due-process" issue was very fully covered in the Findings, Conclusions, and Memorandum Opinion of the trial court. There were the detailed findings on the points of financial burden (Finding X(d), R 3966-3969); interference, delay and obstruction (Findings X(b) and (c), R 3953-3966) and impairment of efficient and economical use of appellant's property (Finding VII(b)(2), R 3917-3921; VII(d)(3), R 3929-3934; XVIII, R 4034); and there were also specific findings addressed to all phases of the safety question, and all of the claims advanced by appellee and its witnesses in attempted justification of the law (Findings XI, XII, XIII, R 3969-4032). In line with these findings the trial court adopted its Conclusion of Law No. VII (R 4037-4038), the substance of which is as follows:

The law is invalid and in violation of the Commerce Clause and both the Federal and State Due-Process Clauses, because it operates arbitrarily and unreasonably to deprive appellant of its property without due process of law; in that (a) it fixes maximum train lengths very much lower than generally obtain elsewhere throughout the United States under similar operating conditions; (b) it makes no allowance for grade or other revelant conditions, including the consist of the trains themselves; (c) it imposes substantial and wholly unreasonable burdens, interferences and delays, and impairs the use and usefulness of appellant's transportation facilities; and (d) it bears no reasonable relation to safety, and neither eliminates nor reduces any existing hazard, but on the contrary creates hazards not otherwise existing,

and increases other)hazards and dangers of railroad operation.

Five principal questions, involving both law and fact, represented by the five propositions stated below, are in our view controlling upon the "due-process" point in this case:

- (a) In considering whether the law is an unreasonable exercise of the police power, the cost or expense of compliance is properly a factor to be taken into account, though not the sole factor.
- (b) In considering whether the law is unreasonable and thus in violation of the due-process clause, the Court is entitled to exercise its independent independent upon the facts as developed in the record and found by the trial court, and in this respect is not bound or hampered by any legislative declaration of purpose, either actual or presumed. The legislative choice is at best supported by merely a rebuttable presumption of reasonableness; but this presumption may be overcome by adequate proof, or may not even arise in a particular case because of other circumstances therein.
- (c) A law which, when enacted, may have been reasonable and valid under the due-process provision, may by lapse of time and change in conditions become unreasonable, and therefore invalid. If relevant conditions have in fact changed substantially since enactment of the law, the presumption of reasonableness above referred to is no longer available.
- (d) Common belief, as exemplified by the almost total absence of similar state or Federal laws, and also by the recent action of the Interstate Commerce Commission (Service Order No. 85), may be relied upon to show, and does show, that the law is wholly unreasonable.

- (e) A purported safety measure which in fact bears no reasonable or any relation whatever to health or safety, but on the contrary increases certain hazards and creates others which would not otherwise exist, is unreasonable and without rational basis and therefore, and without regard to its claimed or actual effects upon interstate commerce, should be held invalid because in violation of the due-process clause. The challenged law is shown by the evidence and the findings of the trial court to fall within this principle.
- (a) In Considering Whether the Law Is an Unreasonable Exercise of the Police Power, the Cost or Expense of Compliance With Its Provisions Is Properly a Factor to Be Taken Into Account, Although Not the Sole Factor.

Finding No. XVI of the trial court (R. 4033-4034) states, in substance, that the added expense caused by appellant's compliance with the law is a factor (but not the sole or controlling factor) which may and should properly be, and has been, taken into consideration in passing upon the reasonableness of the law as a purported safety measure, and in finding that the law is unreasonable and arbitrary, and without any reasonable relation to its claimed, or purported, purpose; and that wholly apart from any question of the burden imposed upon interstate commerce by such compliance, the added cost which appellant is compelled to incur by reason of obedience to the law is wholly out of proportion to, and far exceeds, any safety to any persons which has been, or can or will be promoted by the law.

The principle which is followed in this finding, namely, that expense of compliance is properly a factor to be taken into consideration in determining the reasonableness of a police-power regulation challenged under the due-process guarantee, is of long standing and has been frequently stated by this Court.

In

Washington ex rel. O. W. R. and N. Co. v. Fairchild (1912), 224 U.S. 510, 56 L. ed. 863,

the Court said (at p. 529):

"The question in each case must be determined in the light of all the facts, and with a just regard to the advantage to be derived by the public and the expense to be incurred by the carrier."

In

Missouri Pacific R. Co. v. Norwood, supra (283 U.S. 249, 75 L. ed. 1010);

the Court said (at p. 255):

"The cost of complying with state laws enacted to promote safety is an element properly to be taken into account in determining whether such laws are arbitrary and repugnant to the Due-Process Clause of the Fourteenth Amendment."

In

A. T. & S. F. Ry. Co. v. Railroad Commission (1931), 283 U.S. 380, 75 L. ed. 1129,

in a case involving an attack upon a state order requiring the building of a new station for the convenience and comfort of the people of the City of Los Angeles (a-clear exercise of the police power), the Court said (at pp. 395-396):

"It may not unnecessarily or arbitrarily trammel or interfere with the operation and conduct of railroad

properties and business.' Norfolk & Western Ry. Co. v. Public Service Comm., 265 U.S. 70, 74; Mississippi Railroad Comm. v. Mobile & Ohio R. Co., supra. The question in each case is whether, in the light of the facts disclosed, the regulation is essentially an unreasonable one. Wisconsin, Minnesota & Pacific R. Co. v. Jacobson, supra, Norfolk & Western Ry. Co. v. Public Service Comm., supra. And 'the matter of expense is an important criterion to be taken into view in determining the reasonableness of the order.' Oregon R. & Nav. Co. v. Fairchild, 224 U.S. 510, 529."

As the Court said, in

Wisconsin etc. R. R. v. Jacobson (1900), 179 U.S. 287 (301), 45 L. ed. 194,

with reference to a police power order:

"A statute, or a regulation provided for therein is frequently valid, or the reverse, according as the fact may be, whether it is a reasonable or an unreasonable exercise of legislative power over the subject matter involved. And in many cases questions of degree are the controlling ones by which to determine the validity, or the reverse, of legislative action."

In

Missouri Pacific R. Co. v. Kansas (1910), 216 U.S. 262, 54 L.ed. 272,

which involved the validity of a state commission's order requiring the carrier to maintain passenger-train service, this Court said (at p. 278):

"Of course, the fact that the furnishing of necessary facilities ordered may occasion an incidental pecuniary loss is an important criterion to be taken into view in determining the reasonableness of the order, but it is not the only one."

In

Lehigh Valley R. Co. v. Commissioners (1928), 278 U.S. 24, 73 Led. 161,

involving the validity of an order for the elimination of a highway grade crossing, this Court said (at p. 33):

"The board has the discretion to fix the cost. The function of the court is to determine whether the outlay involved in the order of the board is extravagant in the light of all the circumstances, in view of the importance of the crossing,"...

"An increase from \$200,000 to \$300,000 for a railroad crossing might well, under different circumstances from those here, be regarded as so unreasonable as to make the order a violation of the company's constitutional rights, and to be in the nature of confiscation. The protection of the 14th Amendment in such cases is real and is not to be lightly regarded."

With particular reference to the earlier decision in

Erie R. Co. v. Commissioners (1921), 254 U.S. 394, 65 L. ed. 322,

the Court said, further, in the Lehigh Valley case, that the rule of the Erie case that the police power is effective, even though it may lead to bankruptcy in individual cases . . .

"is not to be construed as meaning that danger to the public will justify grade expenditures unreasonably burdening the railroad when less expenditure can reasonably accomplish the object of improvements and avoid the danger. If the danger is clear, reasonable care must be taken to eliminate it, and the police power may be exerted to that end. But it becomes the duty of the court, where the cost is questioned, to determine whether it is within reasonable limits. This follows from principles clearly established by this court." (Citations.) "We emphasize this, not because there is doubt about it, but because we deprecate the impression apparently entertained by some that in the safeguarding of railroad crossings by order of state or local authority the exercise of police power escapes the ordinary constitutional limitations of reasonableness of cost." (Emphasis supplied.)

The State Supreme Court notably failed to include, in its quotation from the Oklahoma case, any portion of that opinion dealing with the "due-process" issues, as presented to the Oklahoma court (although the "due-process" issue was discussed therein at considerable length: 36 F. Sup. 612-614), except that portion dealing with the consideration to be given to the cost of compliance (36 F. Sup. p. 614). The Oklahoma court said, in this connection, in language reproduced in the opinion of the state court (R. 4063-4064):

"Plaintiff relies upon the Due-Process Clause of the 14th Amendment. It is obvious that to comply with the statute plaintiff will be required to expend additional sums in the operation of its business. The cost of compliance with a statute of this kind is an element for appropriate consideration in determining whether the statute is arbitrary, capricious or repugnant to due process, but, standing alone, it is not always enough to warrant judicial determination of invalidity." (Citing: Missouri Pacific R. Co. v. Kansas, supra: Lehigh Valley R. Co. v. Commis-

sioners, supra; Missouri Pacific R. Co. v. Norwood, supra.)

The State Court thus apparently accepted the views of the trial court as expressed in its Finding No. XVI and repeated in the proposition which serves as the subcaption for this discussion; but declined to apply that principle to the case before it, in spite of its inferential agreement with the trial court that compliance with the statute compels appellant "to expend great sums of money".

We do not and cannot claim that this very heavy continuous and recurring expense, fully proven as it is, would alone justify annullment under the due-process clause.

But unquestionably the Court may set up that expense against any benefits it thinks may be conferred by the law, and determine whether upon a fair consideration of the evidence the supposed benefits are not outweighed by the large cost. There is no evidence that a reduction in damage to equipment and lading is accomplished by the arbitrary limitation or the operation compelled thereby and the record shows that the long-train method of operation is more economical in that respect.

Decrease in the hazard of casualties to all classes of employes arising from road freight or passenger train operation, or even in hazards to trainmen from all causes, has not been claimed by appellee as either the real object of the

^{*}As already noted, the state court said, immediately preceding its quotation from the opinion in the Oklahoma Case (R. 4062-4063):

[&]quot;In that (Oklahoma) case, like the one at bar, the railroad company was compelled . . . to expend great sums of money in order to comply with the restriction . . ." (Emphasis supplied.)

law or the result of its enforcement. In the face of the evidence such a claim would be futile; indeed the trial court found that the hazards just mentioned, with their consequent casualties, are greatly increased. We assert that the evidence shows that clearly, convincingly and beyond any fair debate.

Appellee must stake its all on slack-action accidents. We submit, on the analysis of the evidence made in Finding No. XII of the trial court, that the most that can be said is that compliance with the law does not measurably change the ratio of those accidents to freight-train miles run, and actually increases them on the true basis of arriving at the relative safety of the short-train and long-train methods of operation—the car-mile basis. By appellee's silence on the subject of short-train casualties, and casualties to others than men on the train or in the caboose, it failed even to create a conflict with appellant's showing that by far the safest way to handle the traffic is to use as few train-units as are practicable, even though thereby the standard long-train method of operation is followed. That question, upon the basis of all the evidence, is not even debatable.

In earlier argument appellee has cited Nashville C. & St. L. Ry. Co. v. White (1929), 278 U.S. 456, 73 L.ed. 452, in connection with its discussion of the "cost of compliance," and particularly has emphasized a sentence of the opinion reading:

"There is a marginal chance that occasionally a life may be saved."

We believe that that quotation is peculiarly unfortunate for appellee, in the light of the experience gained with the Train-Limit Law.

Casualties of all classes occur in both long-train and short-train operation: the most that appellee may claim for the law is that it prevents or minimizes certain of these hazards, and it stresses particularly the so-called slackaction hazard. The test of experience may be applied to this claim in a number of ways. The readiest example is found in those exhibits showing the results of appellan 's operations in Nevada and Arizona. During the past several, years, and particularly since and including 1929, longtrain operation has prevailed in Nevada, while the law has been fully observed in Arizona, except for a brief period in March and April, 1940; but all other conditions pertaining to train operations have been identical in both states, or very nearly so. If the law is truly a safety measure, then the accidents and casualties in Arizona should have been much less frequent, for the law should have prevented the occurrence in Arizona of many accidents of the kind attributable (if appellee is correct) to the Nevada longtrain operation. This record shows that the law has not only failed in this asserted purpose, but indeed has had exactly opposite effects.

Thus, in the 12 years 1929-1940, there were, in Nevada, 134 casualties to all classes of employees on duty, incident to read freight train operation; in the same period, in Arizona, there were 290 such casualties (Exhibit 277, R. 3372). In terms of frequency, there were 10.08, or about 100% more (i.e., double) such casualties per 100.000, 000 car miles in Arizona during the six years 1929-1934, and 10.02, or about 170% more (i.e., nearly treble) during the six years 1935-1940. Otherwise stated, if the 70-car limit had been observed in freight-train operation in Ne

vada during those 12 years, and the same cubious "benefits" had been realized as were actually experienced in Arizona, there would have been at least ten more of these casualties in Nevada for every 100,000,000 car miles produced, or a total of 162 more such casualties, over the 12 years, than actually occurred in the long-train operation. The increase would have been about 125%, or more than double.

Even taking slack-action casualties, experience has shown that the limitation does not measurably reduce either their number or their frequency. Thus, during the ten-year period 1929-1938, there were in Arizona 48 such accidents, with 57 casualties; 47 of which, with 55 casualties, were on short trains. In the same ten-year period there were 41 such accidents in Nevada, with 54 casualties. Thus there were more accidents and casualties of this type on short trains in Arizona than on all trains in Nevada during those ten years. The volume of the Arizona traffic, measured in car miles, was about five percent less than in Nevada during that period.

Taking again the same 12-year period (1929-1940) above referred to: there were in Neväda during those years, 61 slack-action casualties to trainmen, associated with the operation of 1,619,000,000 freight car miles; there were in Arizona 62 such casualties, associated with the operation of 1,544,550,000 car miles. The casualty rate per hundred million car miles was 3.77 in Nevada; 4.01 in Arizona (Exhibit 280, R. 3375).

Thus, the 70-car limitation has not only failed to reduce the slack-action casualty frequency in Arizona to the level experienced in Nevada under long-train operation—and this is all that appellee could have claimed for the law, from the most optimistic view-point—there have actually been, under the compelled Arizona operation, .24 more casualties for each 100,000,000 car miles produced during the 12-year period.

Another example of the effect of the law as an accident maker rather than preventer is afforded by the grade crossing hazard. There is no question that the law requires about one-third more train miles to be operated than would otherwise be necessary; its underlying purpose is to compel the affected railroads to operate more trains. In the year 1938, the additional train-miles thus operated by appellant totaled about 680,000 in Arizona and the adjacent territory (Finding X(c), R. 3964, 3965). The history of gradecrossing accidents and casualties in the United States shows that their frequency bears a practically constant relationship to the number of train-miles operated; in any year, and regardless of other circumstances which may vary from year to year, experience shows that there are almost certain to be about 13 persons killed or seriously injured, at railroad highway grade crossings, for every two million train-miles operated (Ex. 269, R. 3307). Thus, the law in 1938, by compelling about two-thirds of a million additional and unnecessary train miles to be run, produced a virtual certainty of at least 4 additional deaths or serious injuries at grade crossings on appellant's lines alone; this entirely apart from its effects in increasing other classes of hazards and resulting casualties.

[•]In 1940, the excess of train hiles compelled by the law was about 730,000: R. 3964.

The reasons for these inevitable results are simple and obvious. The law, by increasing the number of trains operated approximately one-third, also requires approximately one-third more train and enginemen to be employed than would otherwise be needed, and exposes these additional men to every hazard that may occur in connection with train operations, whether the train is moving or standing. By placing one-third more trains on the tracks, it creates additional hazards for those employes whose duties require them to be on the tracks, and who are or may be struck or run down by passing trains. By causing more train units to be operated, it requires more signals to be given, more meetings and passings of trains to be made, more train orders to be issued, and thus involves more opportunities for eversight, negligence, forgetfulness, or disobedience of orders. All of these factors combined produce the results which are plain and inescapable upon the face of the unchallenged record. There is no doubt that the law, far from affording even a "marginal chance" of occasionally saving a life or avoiding an accident, practically insures an increased number of deaths and serious injuries from almost every class of hazard associated with railroad operations.

It is particularly clear that in this case there can be no genuine attempt by appellee to array "human flesh and blood" against mere money. Its primary safety claim relates to slack action casualties and not to any other type of accident or hazard. Giving to this contention all the weight possible in the light of the facts, observance of the

law in Arizona has apparently resulted in about one more slack-accident casualty, for each 417,000,000 car miles produced during the 12-year period 1929-1940, than would have occurred with long-train operation (Exhibit 280, R. 3375). This "benefit" falls so far short of justifying the claim as to compel the conclusion that the law's supporters, i.e., the major train and engine-service brotherhoods, have no real concern with safety. Their true motives are quite different: they have never denied that they support this and other similar restrictions, because the affected railroads are thereby compelled to operate more trains and thus increase the employment opportunities of their members. The practical financial aspect of train limitation constitutes their real interest.

Appellant, and those others who join with it in opposing arbitrary train limits, although in part motivated by financial considerations, are entitled to support their cause by pointing also to the public benefits realized from long train operation, in the way of both a better railroad transportation performance and a greater degree of railroad safety. It is established, and indeed not seriously disputed, that when the restriction is not observed, appellant and other railroads are much better able to provide speedy and efficient transportation service at reduced cost to their patrons, and thus to discharge their public obligation. The facts of record, recited in part above, show equally beyond any question that long-train operation without regard to fixed limitations has also resulted in greater safety for the public, and for all classes of railroad employees, including all of those who by reason of their duties face any of the hazards of train, operation; that even as to the limited

class of casualties with which appellee and its supporters are nominally concerned, the law results in no real benefit, and has in fact demonstrated its inability to reduce even this limited and unimportant class of hazards.

The Train Limit Law has been and is a costly experience, whether the price be measured in money, or in interference, delay and obstruction to essential transportation, or in human life and limb.

- (b) There Is a Rebuttable Presumption of Reasonableness Normally
 Attending a State Police-Power Statute, Challenged Under the
 Due-Process Clause; but
- (c) In the Instant Case That Presumption Is of No Avail Because of the Lapse of Time and Changes in Conditions Since the Law Was Enacted.

It has been pointed out that in its opinion the state court failed to give any independent consideration (i.e., other than as indicated by its quotation from and reliance upon those portions of the Oklahoma opinion in which similar issues were treated) to any of the legal issues of this case except the "due-process" issue. Even the court's consideration of that issue was far from comprehensive; for it consisted essentially of: (a) the statement, as a premise, that the law was enacted "for the purpose of the safety and protection of employees and people being transported by railroad," because "no other reason (than safety) could possibly be assigned" (R. 4059); (b) the citation of but one decision of this court (Barbier v. Connolly (1885), 113 U.S. 27, 28 L.ed. 923), and four state decisions, and a quotation from the text of Corpus Juris Secundum; (e) the quotation of the part of the Okahoma

opinion, 36 F.Sup. 611 (614) already mentioned, which deals with the consideration properly to be given to the expense of compliance; (d) the indirect statement, also already noted, that enforced compliance with the challenged law imposes great additional expense; and (e) the conclusion which, although not expressly stated may be fairly inferred from the context, that as a safety measure the law is supported against appellant's challenge under the due-process clause by an overwhelming and virtually conclusive presumption of validity.

That the court was convinced of and accepted as correct this theory of "overwhelming presumption" is shown by the quotations included in the opinion; and even more persuasively by its failure to review or discuss any of the evidence of the parties or findings of the trial court, addressed to the safety issue and thus to the ultimate question of reasonableness under the due-process clause. This omission is consistent only with acceptance of the supposed presumption: otherwise, in view of appellant's extensive showing, and the careful and detailed findings of the trial court, at least some review of the evidence would have been essential to support reversal of the trial court's judgment.

In this same vein, it should also be noted that in its quotation from the Oklahoma opinion the court omitted the greater part of the discussion of the due-process point, and particularly omitted the portion dealing with the safety showing in that case: compare that opinion, 36 F. Supp. at pages 612-614. Naturally, to have included this discussion would have reflected unfavorably upon the complete omission of all reference to the apparently much more

complete safety showing in the instant case, and also upon the acceptance of the overwhelming presumption. For the Oklahoma court, as a trial court, held only that the safety evidence before it tending to support the challenged law had "greater strength" than the opposing showing, and hence, in view of all the facts, that it could not be said that the Oklahoma statute bore no reasonable or substantial relation to safety, or was unreasonable or arbitrary. The state court's professed acceptance of the Oklahoma case as the guiding authority was thus far from complete.

Apart from this inconsistency, the state court erred in failing to conclude, in accordance with the controlling decisions of this Court, that a state police-power statute attacked under the due process clause is supported by merely a rebuttable presumption of reasonableness, which may even disappear if the fact situation warrants. This Court has repeatedly held that in a case of this character the court has not only the power, but the duty, to review the facts, to reach an independent determination thereon, and to hold the challenged statute invalid if it clearly appears, even though the evidence be conflicting, that the regulation is unreasonable and arbitrary, and without reasonable relation to its declared or ostensible purpose. Thus the Court said, in t

Nebbia v. New York (1934), 291 U.S. 502 (525), 78 L. ed. 940:

"The Fifth Amendment, in the field of Federal activity (Addyston Pipe & Steel Co. v. U. S., 175 U.S. 211, 228, 229) and the Fourteenth, as respects stateaction (Barbier v.: Connelly, 113 U.S. 27, 31; C. B. & Q. R. Co. v. Illinois (200 U.S. 561, 562) do not prohibit.

overnmental regulation for the public welfare. They merely condition the exertion of the admitted power, by securing that the end shall be accomplished by methods consistent with due process. And the guaranty of due process, as has often been held, demands only that the law shall not be unreasonable, or capricious, and that the means selected shall have a real and substantial relation to the object sought to be attained. It results that a regulation valid for one sort of business, or in given circumstances, may be invalid for another sort, or for the same business under other circumstances, because the reasonableness of each regulation depends upon the relevant facts." (Emphasis supplied.)

Not always have the state courts borne in mind that the power to substitute the judicial judgment for that of the legislative exists, and with the power the duty to do so in proper cases; undoubtedly misled by the reiteration of the rule of caution against its exercise, Thus in Dobbins. y. Los Angeles (1903), 139 Cal. 179 (183), 72 Pac. 970, it was held that if the subject matter of the legislation is within. the legislative power, the legislature is the exclusive judge of the propriety of the particular exercise, and that a court would not substitute its judgment. On writ of error to this Court (Dobbins v. Los Angeles (1904), 195.U.S. 223, 49 L. ed. 169; the judgment was reversed. The Court referred to the lower court's basis of decision as being "the proposition . . . that the act of the municipality in question cunnot be reviewed, because so to do would be a substitution of the judgment of the court for that of the council upon a matter left within the exclusive control of the legislative body." Admitting that "every intendment" was to be indulged in favor of the legislation, and that it was not the province of the courts to invalidate it "except in clear cases," it was nevertheless held to be "thoroughly well settled" that legislation under the police power was "subject to investigation in the courts"; that the legislature's "determination as to what is a proper exercise of its police powers is not final or conclusive, but is subject to the supervision of the courts"; citing Lawton v. Steele (1894), 152 U.S. 133, 38 L. ed. 385.

In the Lawton Case, this Court had said (152 U.S., at pp. 136-137):

thority in behalf of the public, it must appear, first, that the interests of the public generally, as distinguished from those of a particular class, require such interference; and, second, that the means are reasonably necessary for the accomplishment of the purpose, and not unduly oppressive upon individuals. The legislature may not, under the guise of protecting the public interests, arbitrarily interfere with private business, or impose unusual and unnecessary restrictions upon lawful occupations. In other words, its determination as to what is a proper exercise of its police powers is not final or conclusive, but is subject to the supervision of the courts." (Emphasis supplied.)

It is particularly true that in no case has it ever been declared by this Court that there is any preferred class of purposes among those for which the state's police power may be exercised. Thus, a purported safety law or order has no higher standing than a law or order which merely

promotes public comfort or convenience by requiring a new railroad station to be built or added train service to be afforded, or one which in order to safeguard public health or morals declares certain practices or things to be public nuisances and abatable as such. It has no greater sanctity or presumption of necessity or propriety than a state law or order fixing public utility rates which is sustainable only under the police power and the most common ground for attack on which is that it violates the Fourteenth Amendment. In all cases where a statute or regulation is attacked upon the ground that it violates the dueprocess clause, a court will always disregard the ostensible purpose and inquire into the substance and effect in order that it may for itself determine whether the law has any real or substantial relation to public health, safety, etc.; and will not be bound by legislative declarations of purpose.

In

Mugler v. Kansas (1887), 123 U.S. 623, 31 L. ed. 205, . this Court said (at p. 661):

they to be misled by mere pretences. They are at liberty—indeed, under a solemn duty—to look at the substance of things, whenever they enter upon the inquiry whether the legislature has transcended the limits of its authority. If, therefore, a statute purporting to have been enacted to protect the public health, the public morals, or the public safety, has no real or substantial relation to those objects, or is a palpable invasion of rights secured by the fundamental law, it is the duty of the courts to so adjudge, and thereby give effect to the constitution." (Emphasis supplied.)

In

Minnesota v. Barber (1890), 136 U.S. 313, 34 L. ed. 455,

the Court said (at p. 319):

"The presumption that this statute was enacted, in good faith, for the purpose expressed in the title, namely, to protect the health of the people of Minnesota, cannot control the final determination of the question whether it is not repugnant to the Constitution of the United States. There may be no purpose upon the part of a legislature to violate the provisions of that instrument, and yet a statute enacted by it, under the forms of law, may, by its necessary operation, be destructive of rights granted or secured by the Constitution." (Citing Henderson etc. v. New York etc., 92 U.S. 259, 268, 23 L. ed. 543.)

After referring to the Mugler Case, supra, the Court also said:

"Upon the authority of those cases, and others that could be cited, it is our duty to inquire, in respect to the statute before us, not only whether there is a real and substantial relation between its avowed objects and the means devised for attaining those objects, but whether by its necessary or natural operation it impairs or destroys rights secured by the Constitution of the United States."

In

Adams v. Tanner (1917), 244 U. S. 590, 61 L. ed. 1336,

this Court rejected the theory that mere reference to the police power can create any unassailable presumption, saying (at p. 595):

"Happily for all, the fundamental guaranties of the Constitution cannot be freely submerged if and whenever some ostensible justification is advanced and the police power invoked."

In

Meyer v. Nebraska (1923), 262 U.S. 390, 67 L. ed. 1042,

this Court, after citing numerous earlier cases, declared the rule to be as follows (pp. 399-400):

"The problem for our determination is whether the statute, as construed and applied, unreasonably infringes the liberty guaranteed to the plaintiff in error by the 14th Amendment." (Emphasis supplied.)

In Lehigh Valley R. Co. v. Commissioners, supra, (278 U.S. 24, 73 L. ed. 161) already cited in the discussion upon the "Cost of Compliance," this Court said (at p. 33):

"... The function of the court is to determine whether the outlay involved in the order of the board is extravagant in the light of all the circumstances."... it becomes the duty of the court, where the cost is questioned, to determine whether it is within reasonable limits."

In

N. C. & St. L. R. Co. v. Walters (1935), 294 U.S. 405, 79 L. ed. 458,

the railroad company had protested against being compelled to pay one-half of the cost of the construction of an underpass whereby a main trunkline highway was to be carried beneath one of its main lines. The company, conceding that the state may ordinarily, under its police power, impose upon a railroad the entire cost, or any part of the cost, of eliminating a grade crossing, claimed that under the special circumstances there shown the statute which imposed the cost upon it, as well as the order of the state authority made pursuant thereto, were arbitrary and unreasonable, in violation of the due-process clause of the Fourteenth Amendment. Upon the facts, this Court held that the state court had erred in refusing to consider the special facts relied upon by the railroad company, and reversed that court's dismissal of the suit. The Court said, in part:

"A statute valid as to one set of facts may be invalid as to another. A statute valid when enacted may become invalid by change in the conditions to which it is applied. The police power is subject to the constitutional limitation that it may not be exerted arbitrarily or unreasonably... The promotion of public sonvenience will not justify the requiring of a railroad, any more than of others, the expenditure of money, unless it can be shown that a duty to provide the particular convenience rests upon it."

This Court thus made it plain that even when a matter so clearly involving safety as a grade-crossing elimination is before it, it will nevertheless protect a railroad by examining closely into the reasonableness of the challenged statute or order, as related to the facts presented.

In another case involving a state statute under which a railroad was required to build an overhead crossing:

Southern Ry. Co. v. Virginia (1933), 290 U.S. 190, 78 L. ed. 260,

the Court said (at p. 196):

"The claim that the questioned statute was enacted under the police power of the State and, therefore, is not subject to the standards applicable to legislation under other powers, conflicts with the firmly established rule that every State power is limited by the inhibitions of the Fourteenth Amendment." (Citing cases.)

In

Fairmont Creamery Co. v. Minnesota (1927), 274 U.S. 1, 71 L. ed. 893,

this Court commented (at p. 11), upon the "duty of the Court to inquire into the real effect of any statute duly challenged because of interference with freedom of contract guaranteed by the 14th Amendment, and to declare it invalid when without substantial relation to some evil within the power of the State to suppress and a clear infringement of private rights."

In .

Liggett Co. v. Baldridge (1928), 278 U.S. 105, 73 Led. 204,

this Court held invalid a police-power statute of Pennsylvania which prohibited the ownership of a drug store by other than a registered pharmacist. The Court said (at p. 111):

"Unless justified as a valid exercise of the police power the act assailed must be declared unconstitutional because the enforcement thereof will deprive appellant of its property without due process of law.

"The act is sought to be sustained specifically upon the ground that it is reasonably calculated to promote the public health; and the determination we are called upon to make is whether the act has a real and substantial relation to that end or is a clear and arbitrary invasion of appellant's property rights guaranteed by the Constitution . . . A statute cannot 'under the guise of protecting the public arbitrarily interfere with private business or prohibit lawful occupations or impose unreasonable and unnecessary restrictions upon them,' (Citing cases.) In the light of various requirements of the Pennsylvania statutes, it is made clear, if it were otherwise doubtful, that mere stock ownership in a corporation owning and operating a drug store, can have no real or substantial relation to the public health; and that the act in question creates an unreasonable and unnecessary restriction upon private business. No facts are presented by the record, and, so far as appears, none were presented to the legislature which enacted the statute that properly could give rise to a different conclusion."

In

St. Joseph Stockyards Co. v. United States (1936), 298 U.S. 38, 80 L. ed. 233,

which involved the reasonableness of certain rates fixed by a Federal legislative agency (and assailed under the due-process clause of the Fifth Amendment), this Court announced its views in language which is directly pertinent here. After saying (298 U.S. at p. 50) that "the fixing of rates is a legislative act" and that the legislature may delegate this authority, the Court further said that where the legislative agency is required to accord a fair hearing, and act upon evidence so as to satisfy the requirements of due process, the judicial inquiry goes no further than to

ascertain whether there is evidence to support the findings, and the question of the weight of the evidence in determining issues of fact lies with the legislative agency. The Court then said (at pp. 51-52):

"But the Constitution fixes limits to the rate-making power by prohibiting the deprivation of property without due process of law or the taking of private property for public use without just compensation. When the legislature acts directly, its action is subject to judicial scrutiny and determination in order to prevent the transgression of these limits of power. The legislature cannot preclude that scrutiny or determination by any declaration or legislative finding. Legislative declaration or finding is necessarily subject to independent judicial review upon the facts and the law by courts of competent jurisdiction to the end that the Constitution as the supreme law of the land may be maintained."

Even if the Train Limit Law were a recent enactment, instead of having been passed in 1912, at a time when practically all of the circumstances material to its enactment were far different than at the present time, no state legislature, either as a body or by committee, could possibly have given to a police-power statute, passed with the declared intent to promote safety, so thorough an examination of the facts as is presented by the record, and summarized by the findings in the present case. Practically, such an examination would be impossible To say that either the trial court, or this Court upon appeal, must blindly and unquestionably accept the legislative conclusions, express or implied, is to foreclose a citizen from judicial review; unless, on its face, the statute is so plainly unreasonable or arbi-

trary that within itself exist the seeds of its judicial dissolution:

Many cases might be cited—each of which must be viewed in the light of its facts—declaring the reluctance of a court to set aside a police power statute or order on the sele ground of unreasonableness; but this Court has not besitated to give relief in a proper case and has never applied the "scintilla" rule in favor of the state or the rule of "moral certainty and beyond a reasonable doubt" against the citizen, as has the state court in the case at bar.

In

Pacific States Box & Basket Co. v. White (1935), 296 U.S. 176, 80 L. ed. 138,

which was a case involving a disputed police-power regulation of the State of Oregon, the Court (at p. 185) referred to "this rebuttable presumption of the existence of a state of facts sufficient to justify the exertion of the police power."

In

Great Northern Ry. Co. v. Washington (1937), 300 U.S. 154, 81 L. ed. 573,

in which this Court considered the question of the validity of a state statute imposing fees upon public utilities operating in the state, which the state court had held to be in the nature of regulatory or inspection fees, it was said (at pp. 160-161):

"A law exhibiting the intent to impose a compensatory fee for such a legitimate purpose is prima facie reasonable. If the exaction be so unreasonable and disproportionate to the service as to impugn the good. faith of the law it cannot stand either under the Commerce Clause or the 14th Amendment. . Such a statute may, in spite of the presumption of validity, show on its face that some part of the exaction is to be used for a purpose other than the legitimate one of supervision or regulation, and may, for that reason, be void. And a statute fair on its face may be shown to be void and unenforceable on account of its actual operation." (Emphasis supplied.)

In.

O'Gorman & Young v. Hattford Ins. Co. (1931), 282 U.S. 251, 75 L. ed. 324,

this Court clearly indicated that while there is a presumption favoring the constitutionality of a challenged police-power statute, that presumption may be overcome by adequate proof. The Court said (pp. 257-258):

clearly within the scope of the police power. We are asked to declare it void on the ground that the specific method of regulation prescribed is unreasonable and hence deprives the plaintiff of due process of law. As underlying questions of fact may condition the constitutionality of legislation of this character, the presumption of constitutionality must prevail in the absence of some factual foundation of record for over-throwing the statute." (Emphasis supplied.)

Compare, also, the statement in the opinion in the Minne-sotal Rate Cases, supra (230 U.S. 352, 452-453, 57 Laed. 1511):

"It is fundamental that the judicial power to declare legislative action invalid upon constitutional grounds is to be exercised only in clear cases. The constitutional invalidity must be manifest, and if it rests upon disputed questions of fact, the invalidating facts must be proved."

In

United States v. Carolene Products Co. (1938), 304 U.S. 144, 82 L.ed. 1234,

this Court said (at p. 153):

"Where the existence of a rational basis for legislation whose constitutionality is attacked depends upon facts beyond the sphere of judicial notice, such facts may properly be made the subject of judicial inquiry, Borden's Farm Products Co. v. Baldwin, 293 U.S. 194, and the constitutionality of a statute predicated upon the existence of a particular state of facts may be challenged by showing to the court that those facts have ceased to exist."

The erroneous views of the state court as to the presumption are revealed, not only by its failure to recognize controlling decisions of this Court, but also by the nature of the authorities upon which it actually relied. Thus, it cited a portion of Section 100 of the article in Corpus Juris Secundum dealing with the subject of Constitutional Law (See 16 C.J. (2) 277, 278; R. 4059), and apparently treated this quotation as a correct statement supporting the view that no inquiry into the facts could be undertaken by the court. The excerpt, when analyzed, does not support, the state court's conclusion; at most, it establishes only that it is to be presumed that the legislature, when it enacted the challenged law, was possessed of full knowledge of the facts and circumstances intended to be reached by the legislation, and acted in good faith and in the light of its knowledge. This presumption, such as it may be, would

in this case extend only to the action of the legislature in 1912; it would not avail to support the challenged law, under the greatly changed conditions prevailing in 1940. Furthermore the same section of the text, in a portion not cited by the court, declares that the presumption supporting the legislative determination is not conclusive, but merely rebuttable:

16 C. J. (2) 281-282:

"So, when a statutory classification is called into question, if any state of facts reasonably can be conceived that would sustain it, the existence of that state of facts at the time the law was enacted must be assumed. However, this presumption of the existence of factual conditions, or of the correctness of legislative findings, supporting legislation, is a rebuttable presumption of fact and not a rule of law which makes legislative action invulnerable to constitutional attack. The party attacking the statute has the burden of establishing the invalidating facts on which his claim is based, if the court cannot take judicial notice of such facts."

The opinion in Salem Lodge, etc. v. Swails (1935), 209 Ind. 347, 197 N.E. 837, cited by the state court (R. 4059), contains no statement such as attributed to it by the court. No question was presented under the federal due-process clause, or any other provision of the Federal Constitution. The decision simply has no relation at all to the case at par.

In-

State ex rel. Blaine v. Wisconsin Telephone Co. (1919), 169 U.S. 198, 172 N.W. 255,

also cited in the state court's opinion (R. 4059), the question was as to the power of the state to continue to reg-

ulate the rates of telephone companies, after possession and control of their facilities had been assumed by the President, on July 31, 1918, pursuant to authority of Congress, as an incident to the war effort. The decision obviously has no bearing, unless to support the principle of Federal supremacy in matters of joint concern.

State ex rel. McBride v. Superior Court (1918), 103 Wash. 409, 174 Pac. 973 (cited at R. 4059-4060).

involved the question of the legality of the detention of a diseased individual, who was held pursuant to an administrative order of a local health commissioner, acting under a local city ordinance. In its opinion the Washington court made certain pronouncements respecting the scope of the inquiry where the police power is involved, which, however, must be read in relation to the facts before the court, and also in the light of the controlling decisions of this Court. On its facts, the case bears no resemblance to the instant case, and certainly does not support any view that when the validity of an alleged safety statute is duly questioned, and the facts supporting invalidity are carefully developed, the court cannot consider them in arriving at its determination.

The decision in People ex rel. Rogers v. Letford (1938), 102 Colo. 284, 79 Pac.(2d) 274, (R. 4067) is likewise without particular bearing in the present case. The case involved generally the validity of the Water Conservancy Act of Colorado; and the pronouncement quoted in the opinion herein was merely a sort of general preamble to the discussion of the particular issues. The statement of the Colorado Court to the effect that invalidity must be established

"beyond a reasonable doubt" is not supported by the pronouncements of this Court. As shown by the numerous decisions already cited, the requirement is no more than that the invalidating facts be *clearly* established.

The state court's approach to the issues in the instant case thus resembles that of the Supreme Court of Tennessee in its decision in Nashville, C. & St. L. Ry. v. Baker (1934), 167 Tenn. 470, 71 S.W.(2d) 678, which, as noted above, was reversed upon appeal to this Court: Nashville, C. & St. L. Ry. v. Walters, supra (294 U.S. 405, 79 L.ed. 458). In summarizing the state court's decision this Court and (294 U.S., at pp. 414-415):

"The Supreme Court (of Tennessee) declined to consider the special facts relied upon as showing that the order, and the statute as applied; were arbitrary and unreasonable; and did not pass upon the question whether the evidence sustained those findings. It held that the statute was, upon its face, constitutional; that when it was passed the State had, in the exercise of its police power, authority to impose upon railroads one-half of the rost of eliminating existing or future grade crossings; and that the Court could not 'any more' consider 'whether the provisions of the act. in question have been rendered burdensome or unreasonable by changed economic and transportation conditions,' than it 'could consider changed mental attitudes to determine the constitutionality and enforceability of a statute'."

So, here, the state court apparently declined to consider the facts specially found, and relied upon as showing that the Train-Limit Law is arbitrary and unreasonable; or even to pass upon any question whether the evidence sustains those findings. It has held that the challenged statute is upon its face constitutional as an exercise of the police power, and supported by a presumption of reasonableness so strong as to render consideration of the facts unnecessary as well as improper. It has wholly failed to consider whether the statute, even if it could be assumed to have been valid when enacted in 1912, has become invalid because of the vast changes in conditions during the intervening years. In the light of the Walters case and the other decisions cited, the state court's consideration of the case was incomplete and partial, and its conclusions were wholly erroneous.

Whatever may be the correct rule generally as to the nature of the presumption in favor of the validity of a police-power statute, and, correspondingly, the extent of the consideration of the facts which must be undertaken by the court before which such a statute is challenged, no such presumption is available in the instant case to assist the appellee in its attempt to sustain the law, nor to justify or support the state court's failure to make a proper determination of the law's merits as an asserted safety measure, upon full consideration of all the facts. Such determination was properly made by the trial court in the first instance, and may and should now be made by this Court on this appeal.

A series of recent decisions of this Court, some of which have been greatly relied upon by appellee in the courts below, make it very clear that the presumption favoring the reasonableness of a state law arises, because the legislative determination "is présumed to be supported by facts known

to" the legislature, which is "assumed to have acted upon information available to the courts"; but that such presumption does not arise if "facts judicially known or proved preclude the possibility" of the legislature having so acted. Compare:

South Carolina Highway Dept. v. Barnwell Bros., supra (303 U.S., at p. 191);
Clark v. Paul Gray (1939), 306 U.S. 583 (at p. 594);
83 L. ed. 1001;

and see, also:

Chastleton Corporation v. Sinclair (1924), 264 U.S. 543 (547), 68 L. ed. 841; United States v. Carolene Products Co., supra, (304 U.S. 144, 153, 82 L. ed. 1234).

In the instant case, we have precisely the situation contemplated by the Court's qualifying phrase: in that facts both judicially known, and amply established by competent proof, demonstrate that the law cannot today be supported by the facts assumed to have been known to the legislature which passed it in 1912.

Conceivably, the prima facie presumption of validity illustrated by the decisions might assist to support the law, if reliance could be placed upon conditions as they existed in 1912, and the knowledge of those conditions, presumably available to and acted upon by the 1912 legislature; in other words, if this were a prosecution for a violation committed in 1912 or shortly thereafter, and while the conditions were fairly similar to those prevailing at the time of the enactment.

However, it is here shown, so clearly that extended argument is unnecessary, that the present conditions are vastly and fundamentally different from those existing when the law was passed. It is equally true, of course, that the 1912 legislature could not possibly have had any knowledge or appreciation, or even any prevision, of present conditions. Appellant's railroad plant in Arizona, as of the months of March and April, 1940 (the precise period of the long-train operations which are the subject of the present case) is entirely different from that which existed in 1912. Both the rolling equipment and the fixed plan have been completely. changed, through the medium of extensive improvement and reconstruction. The volume and characteristics of the traffic are quite different from that which was carried in The evidence upon this point, which is wholly unchallenged, is summarized in the trial court's Findings of Fact Nos. IV(a) (R. 3897-3898), VI(a) and (b) (R. 3902-. 3907) and VII(b) and (e) (R. 3915-3924). Finding IV(a) in its entirety, and as well Findings VI(a) and (b) in large part, were not questioned nor assigned as error by appellee upon its appeal to the state court. Furthermore, throughout the entire course of the case, appellee has never made any contention that these sweeping changes have not occurred; nor referred to any evidence which would challenge or contradict the showing of the fact and extent of the changes. On the contrary, the changes were treated as established facts (appellee's opening brief in the state court op. 240, 274-275).

It follows that in the instant case there is no presumption such as mentioned in the cited cases, grounded upon sup-

posed legislative knowledge, and now requiring consideration in connection with a judicial examination of the facts as they have been found to exist, and the determination, upon the basis of existing facts, whether the law is a proper and reasonable exercise of the police power. A presumption, based upon supposed legislative knowledge of 1912 conditions, would have no value to sustain a claim that the law is valid as applied to the wholly different conditions of 1940. On the other hand, the legislative determination cannot be presumed to be supported by the facts of 1940, upon which the case must now rest, because this Court knows judicially, and the evidence of the record proves beyond challenge, that those facts are wholly different from the facts which were presumably known to the 1912 legislature; and further knows that, in the very nature of things, that legislature could not have known the 1940 facts, nor accurately foreseen them.

What we have said above is perhaps another phrasing of the principle expressed in those decisions of this Court which hold that a statute, which may possibly be valid as against a challenge of unreasonableness at the time of its enactment, may, through lapse of time, and resulting change in conditions, become unreasonable and therefore invalid. Typical of these cases is Nashville, C. & St. L. R. Co. v. Walters, supra, in which, as previously noted, the Court said (294 U.S., at p. 415):

"A statute valid as to one set of facts may be invalid as to another. A statute valid when enacted may become invalid by change in the conditions to which it is applied." (Emphasis supplied.)

In Albee State Bank v. Bryan (1931), 282 U.S. 765, 75 L. ed. 699, which was a suit to enjoin enforcement of a Nebraska state law upon the ground of violation of the dueprocess clause, the Court said (p. 775):

"The principle that a police regulation, valid when adopted, may become invalid because in its operation it has proved to be confiscatory, carries with it the recognition of the fact that earlier compliance with the regulation does not forfeit the right of protest when the regulation becomes intolerable."

So, in the present case, the possible suggestion that the Train-Limit Law was enacted in 1912, but its validity never contested until 1929, when the First Arizona Train-Limit Case was filed obviously affords no reason for criticizing appellant's present endeavor to have the law declared invalid.

In Galveston Electric Co. v. Galveston (1922), 258 U.S. 388, 66-L. ed. 678, this Court stated its views in practically the same language used in the Nashville case, supra, saying (at p. 400);

"A rate ordinance invalid when adopted may later become valid, just as an ordinance valid when made may become invalid by change in conditions (citing cases)." (Emphasis supplied.)

Equally this argument may be said to follow somewhat the same line of reasoning as in

Southern Ry. Co. v. Virginia, supra (290 U.S. 190), in which the Court held invalid an asserted police power statute which provided that a state administrative officer might make a mandatory order for the elimination of a

grade crossing, without prior notice or investigation; the Court declaring that such an officer could not be empowered to make an order of that type, having final and binding effect, merely upon the basis of his view and opinion. Dealing with the argument that the legislature might itself have passed a specific statute ordering the elimination of the crossing, without giving to the railroad company notice or epportunity to be heard, the Court said (at p. 197):

"There is an obvious difference between legislative determination and the finding of an administrative official not supported by evidence. In theory, at least, the legislature acts upon adequate knowledge, after full consideration and through members who represent the entire public."

If, however, it should appear, as in the present case, that the legislative action as applied to present-day conditions is not and cannot be based upon adequate, or any, knowledge of those conditions, or any consideration of them, and that the conditions which the enacting legislature knew or might have known have wholly changed, then the "obvious difference" noted by the Court disappears; and unreasonable legislative action having no present factual basis is no less a denial of due process than similar arbitrary action of an administrative official.

We close this discussion with the citation of the decision of the United States District Court for Arkansas, in

Missouri Pacific R. Co. v. Norwood (1933), 13 Fed. Supp. 23.

In this decision, later affirmed by this Court on December 11, 1933 (290 U.S. 600, 78 L. ed. 527), in a brief memor-

andum opinion, the District Court expressly recognized that even though the statute there involved (the Full-Crew Law of Arkansas) might have been sustained in earlier decisions, a re-examination of the facts currently existing should be made so as to determine whether conditions had so changed as to render the statute arbitrary and unreasonable, in the light of those changes. The court said (at p. 26):

"Concisely, the issue is whether conditions in operation affecting these freight train and switching activities and/or expense of compliance with the laws have so changed since these statutes became law as to render application of them now clearly unreasonable and arbitrary, although such was not so under conditions existing when they were enacted. The 'conditions' and the changes therein are to be considered as to their effect upon the safety of employees and of the public. The 'expense' is to be considered as 'an element properly to be taken into account in determining whether such laws are arbitrary.' Missouri Pac. R. Co. v. Norwood, 283 U.S. 249, 255, 51 S. Ct. 458, 461, 75 L. ed. 1010.

"We are dealing with operating conditions of freight trains (both on the road and in the yard) and the changes on the road which have come about therein within the 25 years since the brakeman law was enacted in 1907, and changes in the city yards during the 19 years since the switchman law was enacted in 1913. To give a picture of these changes, counsel have properly found it necessary to introduce much evidence and upon many different details."

The distinction between the Norwood Case and the instant case, insofar as concerns the present discussion, is

that in that case there were two earlier decisions in which the challenged law had been sustained upon the basis of the conditions as they then existed; whereas in the instant case, no carlier decision exists sustaining the challenged law. The only prior judicial expression rendered involving this law (the final opinion of the three-judge court in the First Arizona Case, 2 F. Supp. 855) condemns it as invalid upon substantially all of the grounds announced in the opinion, conclusions, and judgment of the trial court herein. It is difficult to see how any greater presumption can exist to favor appellee, or support the law, than was/recognized in the Norwood Case; and certainly no greater affirmative burden here rested upon appellant, in presenting its affirmative defense, than was faced by the moving party. in that case. In fact, in the present case, the presumption is not available for the reasons shown; and the burden upon appellant in sustaining its due-process point should not be regarded as any greater than to show, by a fair preponderance of the evidence, that in the light of present-day conditions (upon which, alone, appellee must rely to sustain its position) the challenged law bears no reasonable relation to its alleged object of safety, and, instead of promoting that object, actually increases many hazards and creates many others which would not exist if the law were not enforced. Even if it could be held, however, that the presumption still remains and must be overcome, the evidentiary showing here was ample, as the trial court indicated, to establish the facts which demonstrate that the law is unreasonable, and thus to overcome the presumption completely.

(d) Common Belief, as Exemplified by the Almost Total Absence of Similar State or Federal Laws, and Also by the Recent Action of the Interstate Commerce Commission (Service Order No. 85), May Be Relied Upon to Show, and Does Show, That the Law Is Wholly Unreasonable.

This Court has frequently given consideration in its decisions to what it has termed "common belief" or "common knowledge", in determining the propriety and validity of challenged police-power regulations. Examples of such cases are:

Jacobson v. Massachusetts (1905), 197 U.S. 11, 49 L. ed. 643;

Muller v. Oregon (1908), 208 U.S. 412, 52 L. ed. 551; Bunting v. Oregon (1917), 243 U.S. 426, 61 L. ed. 830;

West Coast Hotel Co. v. Parrish (1937), 300 U.S 379, 81 L. ed. 703.

Parker v. Brown, supra (317 U.S. 341).

In the Jacobson Case, the Court sustained a compulsory vaccination law, and took judicial notice of the fact that "it is the common belief of the people of the United States" that vaccination prevents smallpox.

In the Bunting Case, the Court sustained the O. egon 10-hour law applicable to men factory-workers, and referred in its opinion to the "well-known fact that the custom in our industries does not sanction a longer service than ten hours per day;" and said, therefore, that it could not be held, as a matter of law, that the legislative requirement was unreasonable or arbitrary.

In the Muller Case, the Court, in passing upon the validity of an Oregon statute limiting the hours of labor of women to not more than 10 hours per day, took into consideration the fact that there is "a widespread belief that woman's physical structure, and the functions she performs in consequence thereof, justify special legislation restraining or qualifying the conditions under which she should be permitted to toil." The Court further definitely indicated that common belief or opinion may readily serve to support either side of a controversy over the validity of a statute, saying (208 U.S., at pp. 420-421):

"Constitutional questions, it is true, are not settled by even a consensus of present public opinion, for it is the peculiar value of a written constitution that it places in unchanging form limitations upon legislative action, and thus gives a permanence and stability to popular government which otherwise would be lacking. At the same time, when a question of fact is debated and debatable, and the extent to which a special constitutional limitation goes is affected by the truth in respect to that fact, a widespread and long continued belief concerning it is worthy of consideration. We take judicial cognizance of all matters of general knowledge."

In the West Coast Hotel Case, the Court referred to the action of "many states" as evidencing "a deep-seated conviction;" and relied upon "common knowledge" and "judicial notice" as affording added support for its views, saying (300 U.S., at p. 399):

"We may take judicial notice of the unparalleled demands for relief which arose during the recent period of depression and still continue . . . It is unnecessary to cite official statistics to establish what is of common knowledge through the length and breadth of

the land. While in the instant case no factual brief has been presented, there is no reason to doubt that the State of Washington has encountered the same social problem that is present elsewhere." (Emphasis supplied.)

In Parker v. Brown, supra, this Court took "judicial notice" (317 U.S., pp. 363-365) of available data respecting the nature of the problem involved, including material from such sources as bulletins issued by federal and state departments of agriculture, studies made under the auspices of the state university, reports issued by the Federal Farm Board, and the like.

In the instant case the record shows that although trainlimit legislation has been advocated in the legislatures of many states, and before Congress, those proposals have been rejected in all but four of the states, and that train imit laws have actually been enforced in only two states: Arizona and Oklahoma. The practice of standard longtrain operation, as defined in Finding No. I of the trial court, R: 3888, is the general, uniform, and standard practice everywhere in the United States on all, or practically all, major railroads, except only in the two states The testimony specifically shows, in considerable detail, the mature and character of such operations, upon appellant's lines and also in every section and in almost every state of the United States, and covers not only the entire national transportation system, in a general way, but also, and specifically, the lines of appellant's principal competitors and connections. This specific showing relates to 16 major lines or systems, which operated in 1939 nearly 126,000 miles of railroad, or more than 54%

of the total mileage of the class I railroads of the United States, and handled approximately 60% of all the railroad freight and passenger traffic.

This evidence certainly justifies this Court in reaching the conclusion that there is a common, widespread and virtually uniform belief among those who actually operate the railroads that the standard long-train operating practice is highly desirable and beneficial, simply because it is so nearly universal, and that an arbitrary and inflexible limit is wholly improper and of no benefit to anyone except. the limited class of employes* whose opportunities for employment are artificially increased. Because the Arizona law thus directly conflicts with the standard railroad practices throughout the United States, it should be regarded as opposed to common belief and opinion, and therefore as arbitrary and unreasonable. Certainly the term "common belief," as used by this Court, does not mean the belief held solely by the limited class of employes directly and financially benefited by this particular regulation. These are the only classes of persons who have urged or supported train-limit laws, appearing generally through their national organizations in arguing for such measures before various state legislatures and before the committees of Congress, and, as well, in litigation like the present case, including the various train-limit cases to which we have

^{*}Exhibit 194 (R. 3106) shows that in 1939 644 train and engineservice employes, out of a total of 2,693 employes of all classes on appellant's Tucson Division in Arizona (or 23.9 per cent) would and did have their employment opportunities affected because of the increased number of trains operated by reason of the law's Amitations.

referred. The financial interest of these employes is apparent.

There is no showing, nor any basis for assuming, that the other 76 per cent of railroad employes as a class hold any general opinion or belief favoring train-limit regulation. No representatives of any classes of employes other than the train and engine-service group (trainmen, conductors, engineers, and firemen), took part in the instant case, or have, to our knowledge, supported that group in any other train-limit disputes. The true interest of these other employes is clearly opposed to the law, for it not only does not make more jobs for them (as it does for the train and engine group), but actually makes their work much more hazardous. For example, Exhibit No. 276 (R. 3371) shows that in the 12 years 1929-1940, inclusive, 444 employes in all classes of appellant's service suffered reportable casualties as a result of train and trainservice accidents in Arizona, as compared to 207 such casualties in Nevada; although the aggregate of appellant's Nevada traffic was about 5 percent greater, measured in car miles. During these twelve years long-train operation prevailed in Nevada, and short-train operation; in Arizona, but conditions otherwise were practically identical. Clearly the common belief of the 76 percent of the employes whose hazards of employment are increased. though their employment opportunities are not improved at all by the law, may fairly be presumed to be opposed to the arbitrary limitation.

That "common belief?" is opposed to the arguments of the restricted class of employes whose financial well-being

is improved is also shown by various facts of record, and other matters which the Court may properly notice judicially: that no state other than Arizona and Oklahoma has enforced any law limiting the length of, or number of cars in, a railroad train; that the National Government has refused to impose any fixed maximum limit, or any limitation at all, other than that which requires that trains shall not be longer than can be safely controlled with the air-brakes; and the repeated approval by the Interstate Commerce Commission, as the agency of Congress, of the purchase of larger and heavier locomotives designed and used principally for the handling of long trains. Although the Commission is authorized and required by law to investigate unsafe practices (which, according to the argument of those who favor the Train-Limit Law, includes the operation of trains of more than 70 freight or 14 passenger cars) and to take steps to eliminate such practices, or 'o recommend additional Federal legislation if necessary, it has never found or held that the operation of long trains is a dangerous practice, or recommended that train lengths be limited as required by this law. It conducted an extensive investigation into the operation of power brakes, and has now, as a result of that investigation, issued its tentative order which contemplates, among other things, operation of freight trains of 150 cars. It likewise conducted 1002 accident investigations during the 12year period 1928 to 1939 (as tabulated in Exhibits 270. 271; R. 3310-3348); but it did not, in any of those investigations, make any reference to or recommendation concerning the length of trains, although enpowered to do, so, and although recommendations were made respecting other features of operations.

It is clear that the common belief of all those, both in railroad circles and in public office, who are charged with responsibility for the operation of trains and the movement of traffic, including the safety of such operations, as well as the action of the vast majority of the states (compare the West Coast Hotel Case, supra), is decidedly opposed to the principle of arbitrary train limitation expressed in the Arizona law. The operation of long trains substantially exceeding the Arizona limits is the common and ordinary practice in every state, except Arizona and Oklahoma; that practice has been successfully followed by appellant on all parts of its system, except in Arizona and the adjacent affected territory, for more than 20 years last past, and is being followed today, under authority of Service Order 85, in that territory as well.

It is the common belief of today, not of 1912, which is to be given consideration in the present case.

Just at present, and in view of the existing national emergency, common belief and opinion are more than every overwhelmingly opposed to the crippling impediments imposed by the law upon speedy, efficient and economical railroad transportation. Even in normal times it is highly important that the free flow of the interstate commerce of the nation should not be hampered by artificial restrictions. In time of war and national peril it is not merely important: it is absolutely vital to the national existence. Appellant's lines across Arizona and New Mexico constitute an inseparable and indispensable



part of an essential through route, over which move, and must move, not alone the ordinary commerce of the country, but also the men, materials and supplies required for the national war effort. That the enforcement of the law does, and will continue to, interfere with, delay and obstruct the free movement of that essential traffic, require the employment of more men and consequent wastage of manpower, and cause the wasteful use of locomotives, is completely established upon the record, and would, indeed, be obvious, even without the careful development of the facts which appears in the testimony.

Full recognition of these facts, which are notorious among those belonging to, or interested in, the railroad industry, was accorded by the Interstate Commerce Commission when it issued Service Order 85. In the recitals preceding the order, the Commission called attention to the delays, congestion, interference, and locomotive wastage caused by compliance with state train-limit regulations, and declared that long trains could be operated in accordance with existing safety standards, and that the free flow of traffic would be thereby facilitated. These recitals were not based upon any extended hearing or investigation, or any substantial evidentiary showing, for none was required, the order having been made as an emergency measure under par. 15 of Section 1 of the Interstate Commerce Act. They reflect father the great body of common knowledge and informed opinion respecting the reasonableness of train-limit restrictions, as judged by their effects and results. The Commission's conclusion that the law must be disregarded, in the energency, merely emphasizes, however, that even in normal times

the free flow of traffic is greatly impeded, wasteful practices are compelled, and interstate commerce is directly interfered with and burdened, without any tangible or compensatory benefits whatever, from the safety standpoint; for if it is true, as is undoubtedly the fact, that long trains can be operated "in accordance with safety standards now applicable" (i.e., during the present emergency), it is equally true that they can be operated, in normal times, in accordance with the highest safety standards. In its opinion dealing with the validity of Service Order 85, the Commission said (256 I.C.C. at p. 546):

"The fact that freight trains in excess of 70 cars and passenger trains in excess of 14 cars are operated in other states is convincing evidence of its safety, except where unusual operating conditions exist."

The operating conditions on appellant's lines in Arizona are not unusual but, on the contrary, somewhat more favorable than in many states where long-train operation is the normal and ordinary practice. There is nothing to suggest that the present safety standards of railroad operation are any different than in 1938, 1939, or 1940, or in any recent period; and there have been no new enactments, or amendments of existing federal laws, dealing with safety of train operations, since this case was commenced.

(e) A Purported Safety Measure Which in Fact Bears No Reasonable, Nor Any Relation Whatever, to Health or Safety, but on the Contrary Increases Certain Hazards and Creates Others Which Would Not Otherwise Exist, Is Unreasonable and Without Rational Basis, and Without Regard to Its Claimed or Actual Effects Upon Interstate Commerce, Should Be Held Invalid Because in Violation of the Due-Process Clause. The Train Limit Law Comes Within This Principle, and Is Therefore Invalid.

The first sentence of the above caption states a legal principle which is so well known and so widely accepted, that extensive citation of authority is probably unnecessary. We shall, therefore, refer to only a few of the leading decisions. In

Mugler v. Kansas, supra (123 U.S. 623, 31 L. ed. 205),

this Court said (at p. 661):

"If, therefore, a statute purporting to have been enacted to protect the public health, the public morals, or the public safety, has no real or substantial relation to those objects, or is a palpable invasion of rights secured by the fundamental law, it is the duty of the courts to so adjudge, and thereby give effect to the constitution."

In

Minnesota v. Barber, supra (136 U.S. 313, 34 L. ed. 455),

the Court, after referring to the Mugler Case, said:

"... It is our duty to inquire, in respect to the statute before us, not only whether there is a real and substantial relation between its avowed objects and the

means devised for attaining those objects, but whether by its necessary or natural operation it impairs or destroys rights secured by the Constitution of the United States."

In Liggett Co. v. Baldridge, supra, this Court said, in addition to the portions of the opinion already quoted (278 U.S., at pp. 111, 112):

"The police power may be exerted in the form of state legislation where otherwise the effect may be to invade rights guaranteed by the 14th Amendment only when such legislation bears a real and substantial relation to the public health, safety, morals or some other phase of the general welfare."

After reviewing the facts relied upon to support the law under attack, the Court said further (at p. 114):

"The claim, that mere ownership of a drug store by one not a pharmacist bears a reasonable relation to the public health, finally rests upon conjecture unsupported by anything of substance. This is not enough; and it becomes our duty to declare the act assailed to be unconstitutional as in contravention of the Due Process Clause of the 14th Amendment."

In Washington, etc., v. Roberge (1928), 278 U.S. 116, 73 L. ed. 219, this Court, quoting from Nectow v. Cambridge (1928), 277 U.S. 183, 188, 72 L. ed. 842, said (278 U.S., p. 121):

"The governmental power to interfere by zoning regulations with the general rights of the landowner by restricting the character of his use, is not unlimited and, other questions aside, such restriction cannot be

imposed if it does not bear a substantial relation to the public health, safety, morals, or general welfare.' Legislatures may not, under the guise of the police power, impose restrictions that are unnecessary and unreasonable upon the use of private property or the pursuit of useful activities.''

In Chicago, St. Paul, M. & O. Ry. v. Holmberg (1930), 282 U.S. 162, 75 L. ed. 270, this Court, in declaring invalid an order of the Nebraska State Railroad Commission requiring the installation of an underpass, made the following pronouncement (at p. 167):

"It is plain that the Commission proceeded upon the assumption that the statute authorized it to compel plaintiff to establish the underground pass for the convenience and benefit of defendant in the use of his own property, and that that alone was the ground and purpose of the order. The application thus given to the statute deprives plaintiff of property for the private use and benefit of defendant, and is a taking of property without due process of law, forbidden by the Fourteen Amendment (citing cases)."

In Nashville, C. & St. L. Ry. Co. v. Walters, supra, already cited to the point that a statute valid as to one set of facts may be invalid as to another, or though valid when enacted may become invalid by change of conditions, the Court also said (294 U.S., at p. 415):

"The police power is subject to the constitutional limitation that it may not be exerted arbitrarily or unreasonably. To this limitation, attention was specifically called in cases which have applied most broadly the power to impose upon railroads the cost of separation of grades." (Citing cases.)

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In Treigle v. Acme Homestead Assn. (1936), 297 U.S. 189, 80 L. ed. 575, this Court said (at p. 197):

"Though the obligations of contracts must yield to a proper exercise of the police power, and vested rights cannot inhibit the proper exertion of the power, it must be exercised for an end which is in fact public and the means adopted must be reasonably adapted to the accomplishment of that end and must not be arbitrary or oppressive."

In its own earlier decisions, which, however, were wholly ignored in its opinion in the case at bar, the state court has recognized the constitutional limitations upon the police power expressed in the cited decisions of this Court. Compare:

State v. Childs (1927), 32 Ariz. 222, 257 P. 366; Atchison etc. Ry. Co. v. Arizona (1928), 33 Ariz. 440, 265 Pac. 602;

State v. Borah (1938), 51 Ariz. 318, 76 P.(2d) 767; Buehman v. Bechtel (1941), 57 Ariz. 363, 144 P.(2d) 227; 134 A.L.R. 1374.

The fundamental principle being clear, the question whether it is applicable in the present case is essentially a question of fact: namely, whether the challenged law actually promotes safety, or on the other hand, not only fails to do so, but actually increases the hazards of train operation, both generally, and as to specific classes of accidents.

We do not propose at this point to argue at length all of the evidence bearing upon the safety issue; it is carefully reviewed in the safety findings (Nos. XI, XII, XIII; R. 3969-4032) adopted by the trial court, and also

discussed in some detail in Volume II of this brief. In preceding portions of the argument in this volume, we have called attention to some of the more significant features of this phase of the case. For example, in the discussion of the "Concurrent Field" (part 3 of this argument), we have contrasted the serious burdens and obstructions imposed, against the nebulous safety benefits actually realized. Again, in our review of the "Cost of Compliance" (subdivision (a) of the present topic), we show that even considering only the one minor class of hazards claimed by appellee to be favorably affected by the law, the most that can be said, upon the basis of experience gained during the twelve most recent years (1929-1940) for which statistics were available at the time of trial, is that operation under the short-train restriction is only a little more dangerous in this respect, than the long train practice; this being equally true whether overall totals of casualties, or their relative frequencies, or both, are considered.* But when all classes of hazards to the same group of employees (road freight conductors and trainmen) claimed to be subject to the slack-action hazard are considered, the law increases the dangers substantially; when all classes of hazards to all employes, in-

Actually, in the restricted operation in Arizona, there were 62 slack-action casualties to trainmen on duty, during the twelve years, as compared to 61 in Nevada; on the basis of casualty rates, there was approximately one more casualty of this type, in Arizona, for each four hundred and seventeen million car miles, than under the long-train practice in Nevada. (Ex. 280, R. 3375)

tEx. 279, R. 3374, shows, for example, 117 casualties to road freight conductors and trainmen on duty during the twelve long-train years (1929-1940) in Nevada, and 225 during the same twelve years in Arizona; the casualty rates per one hundred million car miles were: 7.23 for Nevada, and 14.57 for Arizona.

cluding both enginemen and trainmen, engaged in road freight train operation are considered, the increased hazards are still more clearly shown; and finally when all classes of hazards, to all employees on duty, arising out of train operations generally are considered, the effects of the law as a consistent creator of unnecessary danger stand convincingly revealed.;

The conclusions drawn from these Arizona-Nevada comparisons, whose propriety is affirmatively declared in both the findings (R. 3985-3986), and the opinion (R. 4049-4050) of the trial court, are strongly confirmed by the comparisons of casualties in Arizona and New Mexido, including both the appellant's operations in those two states (Finding XII-j, R. 4001-4004; Exhibits 387, 388, 389, 397, R. 3549-3565, 3578), and those of the Santa Fe, which also operates in the two states, and likewise under substantially identical conditions, apart from the train limit law (Finding XII-k, R. 4004-4006; Exhibit 296, R. 3435); by the casualty experience of the Chesapeake and Ohlo Railway. which has developed the long-train operating practice to a degree probably not exceeded by any other major car. rier (Finding XII-l, R. 4006-4008; Exhibits 122, 123, R.-2982-2983); and by the national showing of the consistent

[•]Ex. 277, R. 3372, shows that the total of the Nevada casualties sustained by these employees during the twelve-year period was 134; the corresponding Arizona total was 290. The casualty rates per one hundred million car miles were: 8.27 in Nevada, and 18.77 in Arizona.

tEx. 276, R. 3371, shows, for the same twelve-year period, 207 casualties in Nevada sustained by all classes of employees on duty occurring in train and train-service accidents, and 544 such casualties in Arizona. The casualty rates per million locomotive miles were: 4.77 in Nevada, and 9.22 in Arizona. This showing includes all passenger, freight, and other train operations.

general reductions in both numbers and frequency of all classes of accidents and casualties involving employes and passengers, from all classes of hazards, which have taken place side by side with the widespread development and adoption of the long-train practice, and the consequent increases in the length of trains and the number of long trains operated (Exhibits 262 to 267, inc., 269, 390, R. 3300-3305, 3307, 3566).

While the State Supreme Court, as already noted, omitted from its opinion any conclusion based upon the evidence relative to the safety aspect of the case, the memorandium opinion of the trial court was by contrast quite complete. We quote the following significant passages from that opinion (R, 4050-4053):

"Long-train method of operation prevails in passenger service all over the United States, except in Arizona, and the statistics demonstrate, from the safety angle, that the fourteen-car limit has no logical or reasonable basis. Furthermore, long passenger-train operations in Arizona are entirely practicable and would result in greater efficiency, economy and safety.

"Hence, certainly as applied to passenger-train operations, the challenged law bears no reasonable relation to its claimed object of safety, and instead of promoting that object actually increases many hazards, and creates many others which would not exist if the law were not enforced."

After referring to freight-train operations, the opinion continued with the following comments, applicable to both classes of operations:

"Essentially then the question is not whether a given number of long trains may be operated with fewer casualties than an equal number of short trains, but rather whether the leng-train method of moving the entire volume of traffic results in fewer casualties, of all classes, than the movement of the traffic in a larger number of trains of restricted length:

"In determining then whether the law bears any reasonable relation to safety, only the over-all result in casualties of the entire operation should be considered and when thus weighed it is clear that the law not only does not increase safety of train operations in Arizona, but that as a matter of cold fact it makes these short-train operations more dangerous.

"Thus the Arizona Train-Limit Law not only bears no reasonable relation to safety but, to the contrary, does, and if enforced will continue to, impair and lessen substantially the safety of defendant's train operations in Arizona and the adjacent affected territory." (Emphasis supplied.)

We have cited the First Arizona and Nevada Train-Limit Cases on the points of invasion of the exclusive national field, and occupancy of the field by Congress. These cases are also applicable in considering the extent to which a court may and should go in extending the protection of the due-process flause to one who is soriously interfered with and burdened by a statute defended under the "convenient applogetics of the police power." In each of those cases, as here, one of the important issues was whether, in fact, the regulation was reasonably required to protect life, limb and property, or whether it here no reasonable relation to that object. The evidence

in support of the regulation was largely opinion evidence of men in train service, and their relation of the circumstances of accidents and the details and hazards of train operation. That was offset and overcome by statistics of actual operation-some of which are referred to in the opinions-which showed that the unusual hazards claimed by those witnesses had no foundation in fact. It was extensively and ably argued in briefs on the merits in both cases that the court had no power to substitute its judgment for that of the legislature if there was any evidence tending to support the claim that the statute was a safety statute. But both courts found no difficulty in holding on conflicting evidence that the statutes were void so unreasonable as to deprive plaintiffs of their property without due process of law" and "that it is arbitrary and bears no reasonable relation to the safety of persons or property" (2 Fed. Supp. . 862; 18 Fed. Supp. 393). In the case at bar there is no conflict in the evidence on the safety issue-or any other phase of the case.

We do not claim that either of these decisions controls the instant case on the facts. But we do believe that the result of the thorough trial, argument, and personal consideration by the judges of the issues of law and fact in those cases, should be of considerable assistance in the consideration of the issues of law and fact in the case at bar.

A REVERSAL OF THE LOWER COURT BE CONSTRUED AS A REVERSAL OF THE FINDINGS OF FACT OF THE TRIAL COURT, IT OPERATES TO DENY TO APPELLANT FEDERAL RIGHTS TO WHICH IT IS SHOWN BY THE EVIDENCE TO BE ENTITLED.

(Assignments of Error Nos. 7 and 8)

In the opening statement we have summarized the detailed findings of fact (R. 3879-4034) adopted by the trial court. As we there point out, these findings were rendered by the judge who, sitting without a jury, had heard and considered all of the testimony, both oral and documentary, offered by both parties. The findings are separately stated, and accompanied by formal conclusions of law (R. 4085-4039), in accordance with the established practice in the Superior Courts of Arizona, which is modeled after and follows closely the practice in the District Courts of the United States.

The findings, which cover every phase of the case, are carefully annotated to the testimony, by references to pages of the reporter's typewritten transcript, and the particular exhibits (by numbers) where the evidence relied upon is to be found. Thus they constitute a complete and accurate summary of all the material and relevant evidence of record in the case.

No reference whatever to the findings of fact, as such, appears in the opinion of the majority of the state courtindeed, that court employs the word "findings" only once in the opinion, in the sentence (already cited in our Statement of the Case) near the end of the opinion reading in part as follows (R. 4067-4068):

the opinion, condensed as it is in the foregoing pages, expresses our reason for holding that the findings and judgment of the trial court to the effect that the Train Limit Law is unconstitutional were in error."

This expression could not have been intended by the state court, and certainly cannot be construed, as a determination that the trial court's findings of fact were either wholly erroneous, or even erroneous in any essential respect, in so far as any of said findings, or any portion thereof, may have constituted a determination of a material fact.

This is evident first, from consideration of the opinion itself. The quoted sentence declares that "the opinion; condensed . . . in the foregoing pages, expresses (the) reason" for holding the findings and judgment erroneous. But the opinion is wholly lacking in any discussion of the factual issues of the case, and fails completely even to mention any of the findings of fact, either as an enstirety or in detail; notwithstanding that the state as appellant had presented to that court some 204 separate assignments of error addressed to the findings. The "foregoing opinion" contains fiterally no expression whatever capable of being construed as a reason for holding the findings of fact erroneous. Indeed, it contains no reference whatever to the evidence or to any factual matters at. all, other than the early history of the law, the operation of the two trains which were the subject of the prosecution,

and, by indirection, the heavy burden of expense imposed upon appellant (R. 4062-4063). If the court had intended to express actual disapproval of the trial court's findings of fact, or indicate that other, different, or contrary findings were warranted upon the evidence of record, it could hardly have avoided including in the opinion some discussion of the factual issues and the evidence. Its virtual adoption of the trial court's finding respecting the continuing heavy burden of expense imposed by the law thus strongly suggests a contrary intention.

That the quoted sentence is not intended and cannot be construed as a reversal of the trial, court's findings is also strongly supported by the principle that findings of fact, when made by a trial judge sitting without a jury, are virtually conclusive upon an appellate court, and will not be modified or reversed unless substantial error is clearly shown. This principle is embodied in a statutory rule in Arizona (Sec. 21-1028, a izona Code Annotated, 1939), reading as follows:

"Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge the credibility of the witness."

This rule, which is identical with Rule 52-a of the Federal Rules of Civil Procedure, applies particularly to the case at bar, since it was tried upon the facts to the court sitting without a jury, and the court was duly requested to make special findings of fact and to state separately its conclusions of law thereon.

However, the state court, long prior to the enactment of the statutory rule (1939) had announced and followed the same principle:

Abernathy v. Reynolds (1903), 8 Ariz. 173, 71 Pac. 914:

"The rule, which we have often stated, is that this Court will not disturb the findings of the trial court as to the facts if there is any evidence fairly tending to support them. An examination of the record shows that the findings of fact were fairly supported by the evidence, and the conclusions drawn therefrom by the court are correct." (Emphasis supplied.)

California Development Co. v. Yuma Valley Land & Water Co. (1906), 9 Ariz. 366, 84 Pac. 88:

"The evidence is also conflicting upon the question of the acceptance of the dredge by Sexsmith in behalf of the development company. We must therefore take the findings of the court as conclusive upon both of these controverted questions of fact . ." (Emphasis supplied.)

Curtis v. Peterson, et al. (1926), 31 Ariz. 235, 251 Pac. 723:

"The learned trial judge resolved the question in favor of appellees, and, under our decisions, we must accept his determination of that question as binding."

Blackford v. Neaves (1922), 23 Ariz. 501, 205 Pac. 587:

"Of course in passing on questions as to the sufficiency of the evidence in an appeal of this nature, every presumption is in favor of the findings of the trial judge, and, if there is any evidence in the record which will sustain them, we must accept them as correct."

First Baptist Church of Willcox v. Connor (1926), 30 Ariz. 234, 245 Pac. 932:

"The evidence on his point is in conflict, and we are thereby bound to assume that the necessary finding of the trial court on this matter was correct. In our opinion there is sufficient evidence in the record, if believed by the trial judge as we must assume it was, to sustain the judgment."

Stillsbury, et al. v. School District No. 19 (1930), 37 Ariz. 43, 288 Pac, 1027:

"In determining this question, we must construe the evidence in the most favorable light possible in favor of plaintiff. And if from the evidence so viewed findings could reasonably be made which would support the judgment, we must assume that the court did make such findings."

Charlebois, et al. v. Renaud, et al. (1931), 38 Ariz. 378, 300 Pac. 190:

"We must assume that, where there is a conflict in the evidence, the trial court took that view of it which would support the findings of fact and judgment. In re Estate of Schuster, 35 Ariz. 457, 251 Pac. 38. And this is binding on us if any reasonable testimony sustains it. Moeur v. Farm Builders Corps., 35 Ariz. 130, 274 Pac. 1043.

Cano v. Arizona Frozen Products Co. (1931); 38 Ariz. 404, 300 Pac. 953:

"We must assume, following our well establishedrule, that the trial court took that view of the evidence which would sustain its judgment."

Since 1939, the Court has followed the same rule, the entire doctrine of its decisions on this point being summed up in its opinion in

"In passing upon the appeal, there are certain principles of law governing our consideration thereof, which cannot be disputed: (a) If there is reasonable evidence to support the findings of fact of the trial court, they will be sustained by this court. Glaspie v. Williams, 46 Ariz, 381, 51 P.2d 254. (b) If there is sufficient legal and competent evidence to support such findings, the erroneous atmission of other evidence by the trial court will not justify a reversal of the case. First Baptist Church v. Connor, 30 Ariz 234, 245 P. 932; Glaspie v. Williams, supra. (c) If different inferences as to the ultimate facts may be drawn from evidentiary facts, we must accept the inference drawn by the trial court. First National Bank v. Osborne, 39 Ariz, 107, 4 P.2d 384."

The Arizona rule is thus substantially the same as that which this Court has frequently announced and followed; compare:

Butte & Superior Copper Co. v. Clark-Montana Realty Co. (1919), 249 U.S. 12, 30, 63 Led. 447; District of Columbia v. Pace (1914), 320 U.S. 698, 88 Led., Adv. 319, 321. The state court's opinion contains nothing to indicate an intention on its part to depart from its own consistent rule, let alone to abandon it completely. If there had been such intention, certainly the point would have been mentioned in the opinion, with some statement of the reasons why the court felt impelled to make an exception in the present case, or otherwise to hold the rule inapplicable. Absent such an express declaration, it can only be concluded that the court, following its own rule, accepted the trial court's findings without amendment, and did not intend to substitute instead its own views of the evidence.

That the quoted sentence was not intended and cannot be construed as a reversal of the trial court's findings is further strongly supported by the language of the mandate (R. 4072-4073), which merely ordered the lower court's judgment reversed, but did not direct that the findings be vacated. The trial court, in entering judgment as directed, though declaring the law constitutional, did not disturb its own earlier findings (R. 4073-4074).

That the quoted sentence was not intended and is not to be construed as a reversal of the trial court's findings is again supported by the wording of the sentence itself. That sentence, which we again quote in part for ready reference, refers to the "findings and judgment of the trial court to the effect that the train limit law is unconstitutional." There is no punctuation in the portion of the sentence quoted, indicating a purpose to separate the findings from the judgment; in other words, as the sentence reads, the court was undertaking to declare erroneous "the findings . . . to the effect that the train limit law

is unconstitutional," as well as the judgment to that effect. In the strict and literal sense; the trial court made no such "finding of fact"; its findings may be searched in vainfor any expression declaring the law invalid or unconstitutional. By far the greater part of the trial court's findings of fact contain no statement which can be construed as even indirectly holding, or holding "in effect" that the law is invalid.

It is true that in four rather brief and summary findings (Nos. XVI to XIX, incl., R. 4032-4034), appearing at the conclusion of the detailed findings of fact, the trial court stated certain factual conclusions respecting the character of the burdens imposed by the law, and their effect upon appellant's use of its property in its business as an interstate carrier; these findings might perhaps be regarded as "to the effect" that the law is invalid, though no such expression is actually used therein. All the remaining findings are, hewever, straightforward statements of fact, and express no legal conclusions at all. All the direct statements of the law's invalidity made by the trial court are contained in the separate conclusions of law (R. 4035-4939), or in the judgment (R. 4039-4041), or in the opinion rendered immediately prior to the entry of that judgment (R. 4042-4054). The word "findings," as it appears in the quoted sentence, can therefore be taken only to mean the conclusions, or those portions of the opinion or judgment corresponding thereto, which declare the invalidity of the law, including possibly also Findings Nos. XVI to XIX, inclusive; but it cannot; in the light of the context, he taken as meaning those findings of fact which simply reflect and summarize the pertinent evidence, and thus do not hold or declare, even "in effect," that the law is invalid.

Notwithstanding these cogent reasons, the appellee may contend that the quoted sentence, or the opinion as a whole, should be construed as a determination that the trial court erred, as a matter of fact, in adopting the special findings; that other and contrary findings should have been made; and that upon the basis of such findings a judgment sustaining the law instead of holding it invalid should have been entered.

Assuming that that argument can be maintained, the state court's decision then becomes equivalent to findings, either of fact or of mixed fact and law, as a result of which important federal rights have been denied to appellant. In these circumstances there becomes applicable the consistent rule, repeatedly declared and followed, under which this Court, in order properly to exercise its own functions under the Constitution, will analyze the facts in order to determine whether or not federal rights, duly asserted, have been denied as a result of a purported determination of fact by the state court which is without proper evidence to support it; and if this Court concludes that the lower court has thus acted, it will take such steps as may be warranted in the premises.

The following decisions of this Court particularly declare and illustrate this rule:

Kansas City Southern Ry. Co. v. Albers Commission Co. (1912), 223 U.S. 573, 591, 56 Led. 556; Northern Pacific Ry. Co. v. North Dakota (1915), 236 U.S. 585, 593, 59 Led. 735; Norfolk & Western Ry. Co. v. Conley (1915), 236 U.S. 605, 609, 59 Leed. 745;

Aetna Life Ins. Co. v. Dunken (1924), 266 U.S. 389, 394, 69 L.ed. 342;

Postal Telegraph, Cable Co. v. Newport (1918), 247 U.S. 464, 473, 62 Led. 1215;

Truax v. Corrigan (1921), 257 U.S. 312, 324-325, 66 L.ed. 254;

Baltimore & Ohio Southwestern R. Co. v. Burtch (1924), 263 U.S. 540, 543, 68 L.ed. 433;

Fiske v. Kansas (1927), 274 U.S. 380, 385, 71 L.ed. 1108;

Beidler v. South Cardina Tax Commission (1930), 282 U.S. 1, 8, 75 Leed. 131;

Norris v. Alabama (1935), 294 U.S. 587, 590, 79 L.ed. 1074:

Great Northern Ry, Co. v. Washington, supra (300 U.S. 154, 165-166, 81 L.ed. 573);

United Gas Co. v. Texas (1938), 303 U.S. 123, 143, 82 L.ed. 702;

Pierre v. Louisiana (1939), 306 U.S. 354, 358, 83 L.ed._757;

Smith v. Texas (1940), 311 U.S. 128, 130, 85 L.ed. 84;

Milk Wagon Drivers Union v. Meadowmoor Dairies (1941), 312 U.S. 287, 293, 85 L.ed. 836.

The rule is well stated in Norris v. Alabama, supra, in which this Court said (294 U.S. at p. 590):

"When a federal right has been specially set up and claimed in a state court, it is our province to in-

quire not merely whether it was denied in express terms but also whether it was denied in substance and effect. If this requires an examination of evidence, that examination must be made. Otherwise, review by this Court would fail of its purpose in safeguarding constitutional rights. Thus, whenever a conclusion of law of a state court as to a federal right and findings of fact are so intermingled that the latter control the former, it is incumbent upon us to analyze the facts in order that the appropriate enforcement of the federal right may be assured." (Citing cases.)

Truax v. Corrigan, supra (257 U.S. 312), is of special interest because, like the case at bar, it involved a decision of the Supreme Court of Arizona, brought to this Court by writ of error, in which the state court had undertaken to deny the federal rights asserted by the plaintiffs in error on the basis of factual conclusions which did not accord proper recognition to undisputed facts. Assuming that the quoted sentence is construed as relating to the trial court's findings of fact, the same court has reached the same result in the present case, and by the same method. The cases differ only in that the facts in the Truax Case were presented by the complaint and exhibits, the decision having been rendered on demurrer; in the instant case they are developed by findings which rest upon testimony as to which there is no factual confliet. In the cited case this Court said (257 U.S., at pp. 324-325):

"In cases brought to this court from state courts for review, on the ground that a Federal right set up in the state court has been wrongly denied, and

- man to the state of the state

in which the state court has put its decision on a finding that the asserted Federal right has no basis in point of fact, or has been waived or lost, this court, as an incident of its power to determine whether a Federal right has been wrongly denied, may go behind the finding to see whether it is without substantial support. If the rule were otherwise, it almost always would be within the power of a state court practically to prevent a review here. (Citing cases.) Another class of cases in which this court will review the finding of the court as to the facts is when the conclusion of law and findings of fact are so intermingled as to make it necessary, in order to pass upon the question, to analyze the facts. (Citing cases.) In view of these decisions and the grounds upon which they proceed, it is clear that in a case like the present, where the issue is whether a state statute, in its application to facts which are set out in detail in the pleadings and are admitted by demurrer, violates the Federal Constitution, this court must analyze the facts as averred and draw its own inferences as to their ultimate effect, and is not bound by the conclusion of the state supreme court in this gard."

In Great Northern Ry. Co. v. Washington, supra (300 U.S. 154), this Court, dealing with a similar issue, said (p. 165):

"Passing the appellant's contention that a federal right may not be denied under the guise of the application of a state rule of evidence, we come to the question whether, when the asserted right has been denied, this court is concluded by a finding of fact or a mixed finding of law and fact made by the state court. We have repeatedly held that in such case we

must examine the evidence to ascertain whether it supports the decision against the claim of federal right."

The Court then cited and quoted from Norris v. Alabama, supra (294 U.S. 587); Beidler v. South Carolina Tax Commission, supra (282 U.S. 1); and Johnson Oil Co. v. Oklahoma (1933), 290 U.S. 158, 159-160, and concluded its discussion of the point by saying (p. 167):

"Citation of authority for the same principle might be multiplied indefinitely."

In Pierre v. Louisiana, supra (306 U.S. 354), one of the most recent decisions involving this same principle, Norris v. Alabama is referred to with approval, the Court indicating that, while the factual conclusions reached by the state court are entitled to great respect, yet when a claim is properly asserted that a right guaranteed by the Federal Constitution has been denied, it becomes the solemn duty of the Court to make independent inquiry and determination of the disputed facts.

More recently still, in the Milk Wagon Drivers Union Case, supra (312 U.S. 287), this Court said (p. 293):

"Still it is of prime importance that no constitutional freedom, least of all the guarantees of the Bill of Rights, be defeated by any insubstantial findings of fact screening reality. That is why this Court has the ultimate power to search the records in the state courts where a claim of constitutionality is effectively made."

We shall not at this point argue at length the correctness of the findings of fact made by the trial court,

from the standpoint of evidentiary support, and the consequent error of the state court's conclusion (if its opinion be so construed) that those findings of fact are incorrect ("erroneous") and must be reversed. Volume II of this brief ("The Facts") contains a detailed discussion of each of the findings of fact, explaining its purpose and referring to the evidence which supports it. Volume II should be reviewed, however, only if the reader is convinced that the state court not only intended to pass upon the correctness of the findings of fact made by the trial court and to reverse those findings, but also actually did so through the medium of the quoted sentence, thereby giving rise to the questions of fact presented by appellant's eighth assignment of error.

If the Court undertakes to review the findings in the light of the evidence, it will be impressed with the fact that the findings, though somewhat detailed, are a very accurate summary of all the testimony. No pertinent evidence introduced by either party has been disregarded. Taken in their entirety, the findings present a complete picture of the entire case, and set forth every factual consideration necessary to a correct decision.

It cannot be too strongly emphasized that there is no real conflict in the evidence. This is primarily for the reason that it consists largely of statistical material, condensed into exhibits and accompanied by explanatory oral testimony, which material is taken from official or other unimpeachable sources; such as, for example, official publications of the Interstate Commerce Commission; periodical and other reports rendered to that Commission or to

state commissions, pursuant to statute; permanent underlying records of the appellant and of other railroads, and other records prepared and maintained by the railroads as a part of the ordinary course of their business; and studies based principally upon day-to-day records of actual train movements. The evidence is thus very largely of the same character as that presented in the recent Retirement Act case (Railroad Retirement Board v. Alton R. Co. et al. (1935), 295 U.S. 330, 79 L.ed. 1468). In fact, certain of the tabulated exhibits presented in the present case correspond closely to exhibits which were before the Court in the Retirement Act Case. Compare, for example, Exhibits Nos. 262 and 263 (R. 3300, 3301) with the tabula. tions appearing in the footnote on page 365 of the report in the cited case; and see also footnote 11 on page 366. Statistical showings of this type were referred to by this Court as "incontrovertible" (295 U.S. 364); and it was further stated that they constituted "overwhelming evidence," which demonstrated the results shown "without contradiction."

Only to a minor extent does the testimony include statements based upon the observation or experience of witnesses, as distinguished from written records; but even this testimony presents no factual conflict. The only differences between the appellant and the state, so far as concerns any of the testimony, arise because of either (1) the admission of evidence offered by appellant which the state considered immaterial, irrelevant or incompetent, and the exclusion of certain other testimony offered by the state, on corresponding grounds; or (2) opposing views as to the factual and legal conclusions to be drawn

from facts which are themselves undisputed. But it has not been asserted, and no such assertion could be genuinely made, that any part of the factual showing of either party is false, or erroneous because true only in part, or misleading as a representation of fact. Appellee has made no such assertion at any stage of the case; it has never challenged the truth of any of appellant's factual testimony, even though continuously insisting that much of said testimony was incompetent or otherwise inadmissible.

The issues before this Court do not involve, however, any alleged errors because of the admission or exclusion testimony. No such question was decided by the State Supreme Court; for even though 662 assignments of alleged error in the rulings of the trial court upon the admission of testimony were presented by appellee and argued to that court, the findings were not declared by that court to be erroneous because based upon supposedly inadmissible testimony. We point out again that the opinion, "condensed * * * in the foregoing pages," stated by that court to express its reasons for holding the "findings" erroneous, contains no discussion of evidence, nor any statement sustaining any fragment of the state's challenge upon the ground of error in the trial court's rulings. So far as the opinion reveals the court's views upon the evidence, it accepted the record as made in the trial court. Its statement in the quoted sentence now under discussion must therefore be taken as either relating to the trial court's conclusions rather than its findings of fact (the construction we suggest above), or as holding that, despite the evidence of record, contrary findings of fact should have been and should now be made. If the latter, the court's action was a mere arbitrary refusal to recognize the facts: in effect a denial of the truth of matters which on the record were and are factually unchallenged, and thus a deliberate misfinding of the facts in order to support the declared conclusion. In such circumstances, this Court's duty as proclaimed in its decisions is clear. This Court has both the power and the duty to review the record, and thereby determine for itself that the state court has reached factual conclusions which are without substantial or indeed any evidentiary support, and upon that basis has denied to appellant rights guaranteed under the Federal Constitution which, upon the actual record, should have been sustained.

CONCLUSION

In conclusion we submit that:

- 1. The matter of the regulation of the length and consist of interstate railroad trains is a subject as to which a national or uniform system of regulation is necessary if any regulation at all be required; and it therefore falls within the exclusive national field. The Train Limit Law invades this exclusive national field of regulation.
 - 2. The Train Limit Law necessarily, practically, and inevitably regulates and controls the length and consist of appellant's interstate trains, and other railroad operations of appellant, not only within Arizona but also, as appellee has conceded, in adjoining states and for substantial distances beyond the boundary lines of Arizona. It is

therefore wholly void, because it undertakes to and does regulate interstate commerce with extra territorial effect.

- 3. Even though it should be considered, for the sake of argument, that the regulation of the lengths of interstate trains falls within the "concurrent" field, the Train Limit Law, because it imposes direct and substantial burdens and restrictions upon and directly and materially obstructs and interferes with the free flow of interstate commerce, goes far beyond any powers which the state may have in the concurrent field, and is therefore invalid.
- 4. The Train Limit Law, if considered or claimed to be an attempted limitation of the lengths of trains for the sake of proper handling and safe control, infringes upon, conflicts with, and attempts to supplement existing Federal legislation and regulations having the same or similar purposes and effects, and is therefore invalid.
- 5. The Train Limit Law is not fortified or assisted by any presumption of reasonableness based upon assumed legislative knowledge of conditions existing at the date when this case arose. Although claimed to be an exercise of the police power in the interest of safety (despite the fact that no legislative declaration of the purpose of the law was made, and no purpose is evident on the face of the law), it bears no reasonable or any relation whatever to health and safety. It is clearly in excess of the legislative power, and also arbitrary and unreasonable, and deprives and will continue to deprive appellant of its property without due process of law.
- 6. The opinion and decision of the Supreme Court of Arizona, if construed as a reversal by that Court of the

findings of fact made by the trial court, are equivalent to an attempted finding upon factual matters not supported by and in conflict with the evidence, as the result of which appellant has been deprived of federal rights to which it is shown by the record to be entitled.

7. Upon the record, and in the light of the controlling principles, the Train Limit Law should be held invalid and unconstitutional, upon each and all of the grounds above set forth, because it violates and infringes upon the Commerce Clause of, and the Due Process Clause of the 14th Amendment to, the Constitution of the United States. The decision and judgment of the Supreme Court of Arizona should be reversed, and the cause remanded with instructions to enter judgment in favor of appellant.

Respectfully,

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Dated at San Francisco, California, November 10, 1944.

(APPENDIX FOLLOWS)





Appendix

ORDER

At a Session of the
INTERSTATE COMMERCE COMMISSION,
Division 3.

held at its office in Washington, D. C., on the 29th day of July, A. D. 1944 No. 13528

Investigation of Power Brakes and Appliances for Operating Power-Brake Systems

It appearing, That on July 18, 1924, the Commission made and filed a report in this proceeding in which there were enumerated certain general requirements which should be met by power brakes for passenger and freight trains, in the interest of increased safety in train operation; and that the proceeding was held open to afford opportunity for the formulation of full specifications and requirements and for consideration of the form of order to be entered;

It further appearing, That respondents, through the American Railway Association (now Association of American Railroads), after extended investigation and tests, adopted, on August 16, 1933, specifications and requirements for power brakes, and appliances for their operation, in freight service to comply with certain of the general requirements referred to in the preceding paragraph hereof, and promulgated a rule requiring that all freight cars built new after September 1, 1933, be equipped with power brakes which conformed to said specifications and

requirements; and on November 20, 1934, modified their interchange rules to require that on and after January 1, 1945, all freight cars in interchange service must be equipped with air brakes meeting the requirements of said specifications;

And it further appearing, That reports filed semi-annually with the Commission by the Association of American Railroads show that the progress in equipping freight cars in interchange service with air brakes meeting said specifications has not been as rapid as anticipated, and that only approximately 50 per cent of such cars are now so equipped,

It is ordered, That all common carriers by railroad subject to section 25 of the Interstate Commerce Act be, and they are hereby, cited to show cause, if any there be, in writing, on or before August 26, 1944, why—

- (1) Specifications and requirements as set forth in the appendix to this order should not be prescribed by the Commission for power brakes and appliances for operating power brake systems, to be applied to cars used in freight service; and
- (2) If specifications and requirements in substantial conformity with those set forth in the appendix to this order are prescribed by the Commission, an order should not be issued requiring that all cars used in freight service be equipped with power brakes and appliances for operating power brake systems, conforming to such specifications and requirements, on or before January 1, 1946;

It is further ordered, That a prehearing conference to discuss and consider the subject-matter of this order, at

which Chairman Patterson will preside, be, and it is hereby called for September 6, 1944, at 10:00 o'clock A.M., at the Morrison Hotel in Chicago, Ill.

And it is further ordered, That a copy of this order be served upon all common carriers subject to section 25 of the Interstate Commerce Act and upon all national organizations of railroad employees and that notice be given the general public by depositing a copy of this order in the Office of the Secretary of the Commission at Washington, D. C.

By the Commission, Division 3.

W. P. Bartel, Secretary.

(Seal)

Appendix

No. 13528

Investigation of Power Brakes and Appliances
for Operating Power-Brake Systems

APPENDIX TO ORDER OF JULY 29, 1944*

Specifications and Requirements for Power Brakes and Appliances for Operating Power Brake Systems for Freight Service

PURPOSE

The purpose of this specification is to define and prescribe requirements for power brakes and appliances for operating power brake systems.

DEFINITIONS

For purpose of this specification, terms used herein are defined as follows:

- 1. Power Brake—A combination of parts operated by compressed air and controlled manually, pneumatically or electrically, by means of which the motion of a car or locomotive is retarded or arrested.
- 2. Power Brake System—The power brakes on locomotives and cars of a train so interconnected that they can be operated together and/by means of which the motion of the train is retarded or arrested.
- 3. Brake Valve—The valve of the locomotive equipment by means of which operation of the power brake system is controlled.

^{*}As modified by the further order of October 19, 1944.

- 4. Equalizing Reservoir—The small reservoir connected to the brake valve only, the pressure of which is reduced by the engineer for making service applications.
- 5. Brake Pipe—The line of pipe and hose extending throughout the length of the train by means of which compressed air is supplied to the brake devices on the several cars and the pressures so controlled as to effect the application and release of the brakes.
- 6. Operating Valve—Device on each car, the operation of which results in:
 - (a) Admission of air to brake cylinder,
 - (b) Release of air from brake cylinders, and
 - (c) Charging of one or more reservoirs.
- 7. Service Reduction—A decrease in brake pipe pressure, usually of from 5 to 25 pounds, at a rate sufficiently rapid to move the operating valve to service position, but at a rate not rapid enough to operate the valve to emergency position. Quick service is that feature of the operating valve which provides for local reduction of brake pipe pressure.
- 8. Service Application—A brake application which results from one or more service reductions.
- 9. Full Service Reduction—A service reduction sufficient in amount to cause equalization of pressure in brake cylinder with pressure in the reservoir from which compressed air is supplied to brake cylinder.

- 10. Full Service Application—A brake application which results from one or more brake pipe reductions sufficient in amount to cause a full service reduction.
- 11. Emergency Reduction—A depletion of brake pipe pressure at a rate sufficiently rapid to move the operating valve to emergency position.
- 12. Emergency Application—A brake application which results from an emergency reduction.
- 13. Emergency Brake Cylinder Pressure—The force per square inch exerted upon piston in brake cylinder by compressed air which is admitted to brake cylinder as a result of an emergency reduction. Effective emergency brake cylinder pressure is a pressure not less than 15 per cent nor more than 20 per cent greater than the brake cylinder pressure obtained from a full service reduction on the same car and from the same initial pressures.

SPECIFICATIONS

General Requirements.

- 14. The design of the operating valve shall be such as will insure efficient and reliable operation, both in its application and release functions and when intermingled with other types of power brakes. It shall be so constructed that the rate of brake cylinder pressure development may be adjusted to meet such changes in train operating conditions as may develop in the future.
- 15. The design of the service and emergency valves shall be such as to permit their removal for cleaning and repair without disturbing pipe joints.

- 16. The portions of the car brake which control the brake application and release, and also the brake cylinder, shall be adequately protected against the entrance of foreign matter.
- 17. The apparatus conforming to the requirements of these specifications shall be so constructed, installed and maintained as to be safe and suitable for service.

Service Requirements.

The apparatus shall be so designed and constructed that:
(Based upon 70 pounds brake pipe pressure and train length of 150 cars.)

- 18. With a service reduction of 5 pounds in the equalizing reservoir at the brake valve all brakes will apply.
- 19. An initial 5-pound equalizing reservoir reduction at the brake valve will produce substantially 10 pounds brake cylinder pressure throughout the train, including brakes having piston travel in excess of 8 inches.
- 20. With an equalizing reservoir reduction of 10 pounds, the difference in time of obtaining substantially 10 pounds pressure in the brake cylinder of the 1st and 150th brakes will be nominally 20 seconds or less.
- 21. A brake pipe reduction of 10 pounds will result, in pressure in each brake cylinder of not less than 15 pounds nor more than 25 pounds.
- 22. A total brake pipe reduction of 25 pounds will result in equalization of brake cylinder pressure with pressure in the reservoir from which compressed air is supplied to the brake cylinder, and brake cylinder pressure

of not less than 48 pounds nor more than 52 pounds will be obtained.

- 23. Quick service activity of the train brakes will cease when the initial quick service action has been completed.
- 24. The quick service feature of the brake will produce substantially uniform time of quick service transmission regardless of the unavoidable variations in frictional resistance of the parts.
- 25. The brake will so function as to prevent a degree of wave action in brake pipe pressure sufficient to cause undesired release of any brakes while the brakes are being applied.
- 26. The degree of stability will be sufficient to prevent undesired service application occurring as a result of unavoidable minor fluctuations of brake pipe pressure.
- 27. The brake cylinder pressure increase resulting from quick service operation will be less when the brake is reapplied with pressure retained in the brake cylinder than with applications made when the brake cylinder pressure is zero.
- 28. Undesired quick action will not result with any rate of change in brake pipe pressure which may occur during service application or release of the brake.
- 29. In the normal release of train brakes, individual car brake will not start recharging from the brake pipe until brake pipe pressure has increased sufficiently to have accomplished the release of adjacent valves.

- 30. The recharge of auxiliary reservoirs in the forward portion of the train will be automatically retarded while full release position of the brake valve is being used to initiate the release of train brakes.
- 31. After 15-pound service reduction has been made and brake valve exhaust has closed, in a release operation in which brake valve is moved to release position and after 15 seconds is moved to running position, all operating valves will move to release position within 40 seconds after brake valve is placed in release position.
- 32. After a 15-pound service reduction has been made and brake valve exhaust has closed, in a release operation in which brake valve is moved to release position and after 15 seconds is moved to running position, brake pipe pressure at car 150 will be increased 5 pounds within 1½ minutes after brake valve is placed in release position.
- 33. The rate of release of pressure from the brake cylinder will be nominally 23 seconds from 50 pounds to 5 pounds.

Emergency Requirements.

The apparatus shall be so designed and constructed that:

- (Based on 70 pounds brake pipe pressure and train length of 150 cars.)
- 34. Emergency application operation will always be available irrespective of the existing state or stage of brake application or release.
- 35. Emergency application initiated during a release of a previous brake application will produce a material

increase in brake cylinder pressure over that which would result from a full service application made under the same conditions.

- 36. When operating valve acts in emergency it will so function as to develop nominally 15 pounds brake cylinder pressure in not more than $1\frac{1}{2}$ seconds and maximum pressure in nominally 10 seconds.
- 37. With an emergency reduction of brake pipe pressure all brakes, including the 150th, will start to apply within 8.2 seconds and develop not less than 15 per cent r r more than 20 per cent in excess of 50 pounds brake cylinder pressure within 18.2 seconds from the movement of the brake valve to emergency position.
- 38. The operating valve will so function that, when an emergency application is made subsequent to a service application which has produced not less than 30 pounds brake cylinder pressure, the maximum brake cylinder pressure will be attained in nominally 4 seconds from the beginning of the emergency action of the valve.
- 39. Emergency application will produce from a charged system between 15 and 20 per cent increase in brake cylinder pressure over that which results from a full service application and irrespective of any degree of prior service application.
- 40. With any group of three consecutive brakes cut out, an emergency reduction made with the brake valve will cause the remainder of the brakes to operate in emergency and produce n rmal emergency pressures in the same time as when all brakes are cut in.

- 41 The brake will so function as to accomplish the release of an emergency application with the same degree of certainty secured in the release of service applications.
- 42. When releasing brakes following an emergency application, each brake will so function as to decrease the auxiliary reservoir pressure prior to the actual release.
- 43. Both service and emergency brake applications will be released when the brake pipe pressure is increased to not more than 13/4 pounds above that of the auxiliary reservoir and irrespective of the increased frictional resistance to release movement of the piston and slide valves after a period of operation in train service.